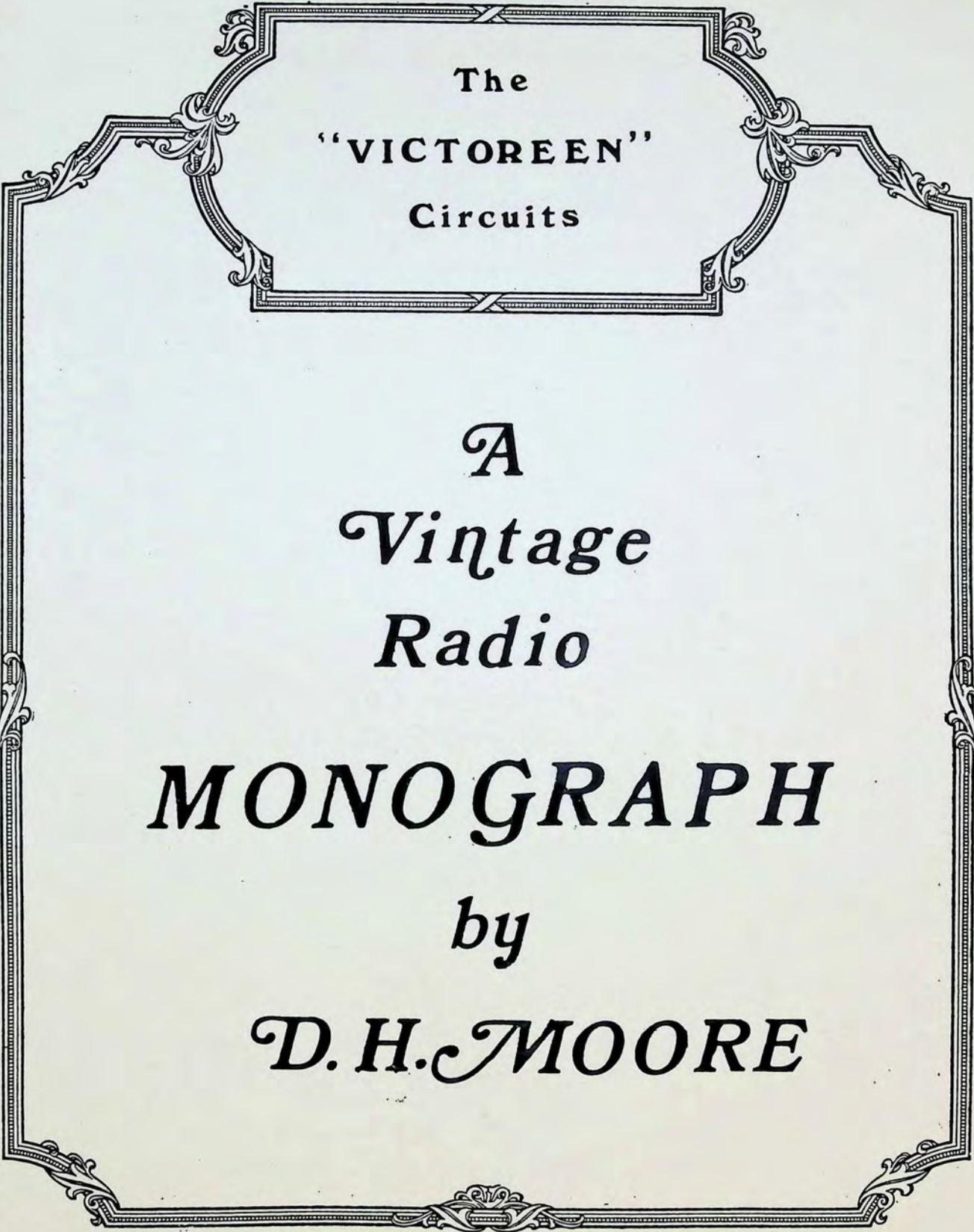




The
"VICTOREEN"
Circuits

A
Vintage
Radio
MONOGRAPH
by
D. H. MOORE

The Editorial Group,  Ltd...

P.O. BOX 521 • PALO ALTO, CALIFORNIA

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DEDICATION

...to a way of life -
that should not have
been forgotten.

Autographed Edition

*I*t is my sincerest wish that
this latest contribution of
my vintage radio writings may
afford you as much enjoyment
and usefulness as I've had in
compiling it.

Over to you, and 73,

Palo Alto



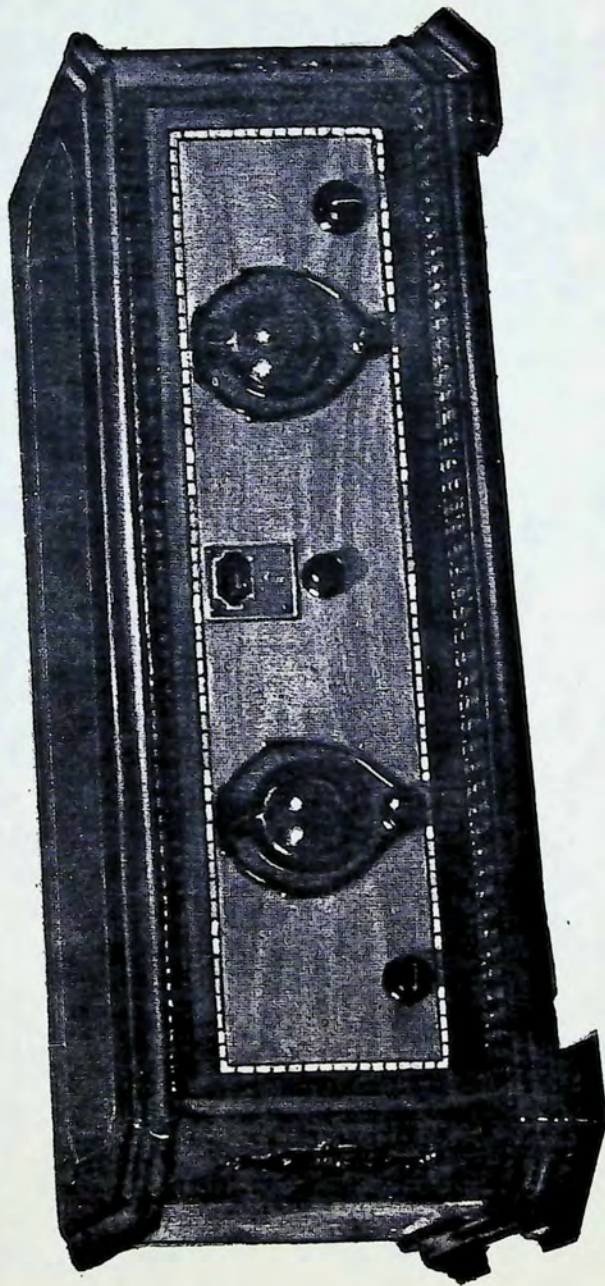
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VICTOREEN UNIVERSAL



PREFACE

From 1926 until 1930 The VICTOREEN super-het was one of a small number of extremely popular circuits for home-constructors, one of three, to be exact. The secret of its popularity lay in exceptional efficiency and smoothness of operation, both aspects which resulted from RF coils designed by John A. Victoreen. Next to vacuum tubes, coils were the most fascinating and mysterious for early set-builders and hundreds of coil-winding data were published month after month in early Radio magazines.

Another marque that enjoyed extraordinary popularity also owed that popularity to its coil design - the Browning-Drake. The B-D coil assemblies were used by several set manufacturers.

Peaking RF coils at ultra-high frequencies occurred late in the game, but Victoreen was among the first to design a good one - the forerunner of his #170 coil. The first coils were wound on three inch open forms; encasement came later. From the beginning, the Geo. W. Walker Company of Cleveland merchandised all Victoreen products. I have gathered together all known variants of the VICTOREEN super-hets in the following pages, from the original circuit of 1926 through the numerous variants, along with power supplies, amplifiers, converters, by such as Lynch and Calcaterra.

Turning the VICTOREEN circuit into portables was in vogue for a few years, but they had a different definition for portable in those days, and they averaged 55 pounds. Victoreen, himself, favoured loop-reception, and some impressive DX records were established with the early VICTOREEN super-hets.

Late in the Twenties Victoreen designed several units encased in Bakelite, very neat, very efficient, and shown herein. They showed innovation, practicality, and imagination, as well as affording aesthetic satisfaction.

The man, himself, was born in Pennsylvania in 1902. Radio fascinated him at an early age, and he took to making his own gear to include making his own tubes - no mean feat for an individual. After the Kaiser's War, he was among the first to take the Government's new amateur radio operator tests. With his first circuit, called #112 the New York "Times" devoted two full pages to it, resulting in sales all over the world.

He attended the first Radio Exposition in Chicago in 1919

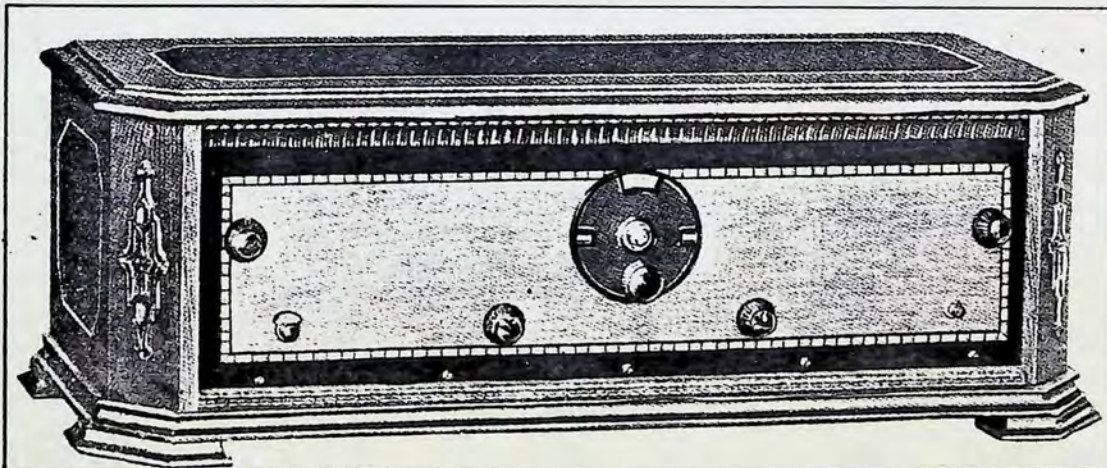
where 75,000 people were in attendance, and the Model 112 was on display. He remembers that amid the tons of thrown away trash that accumulated on the floor when the show was over, there were none of his.

He early on joined in the fight against the RCA attempts to monopolise the infant Radio industry, and particularly against the Armstrong super-het patent infringement suits. RCA sued his miniscule company, without actually knowing (admitted later) whether they owned the patent rights or not. He had decided to leave Radio before that fight was finally settled by the Supreme Court, and AT&T took up his case.

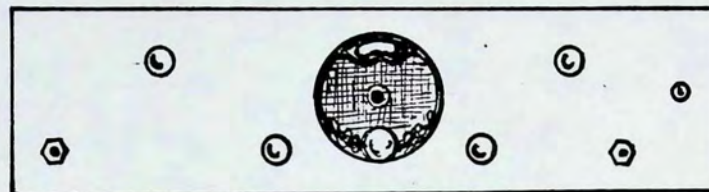
The VICTOREEN was the first radio to have a national fan club spring-up around it. It was sponsored by the weekly publication Radio World in 1927, and endured for a couple of years. There were a number of regional chapters, complete with monthly meetings, DX contests, newsletters, etc. The only thing the members seem to lack was a modish lapel button of identity, such lapel buttons being all the rage during the decade for all sorts of clubs and fraternities.

Today, as of this writing, Dr. Victoreen resides in that other deer-park called Florida, still actively engaged in the design and production of specialty hearing-aids. He has also written definitive texts on the subject.

* * *

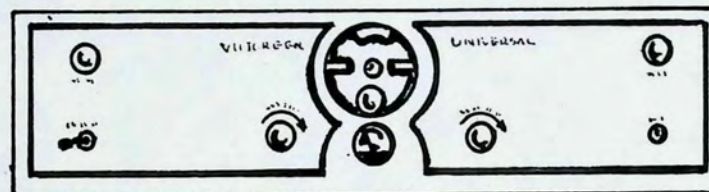


VICTOREEN PANEL CONFIGURATIONS



Eby Dial

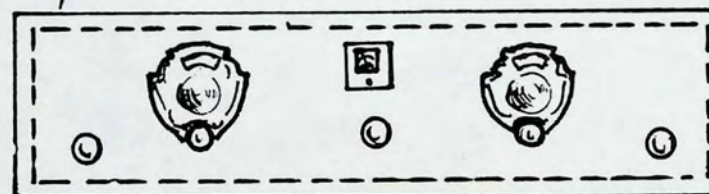
"STANDARD"



Mar-Co Dial

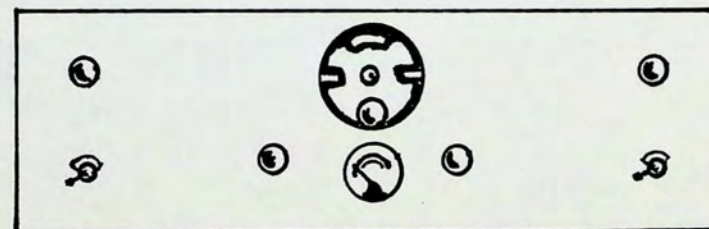
Lignole Panel

"UNIVERSAL"



Kurz-Katch

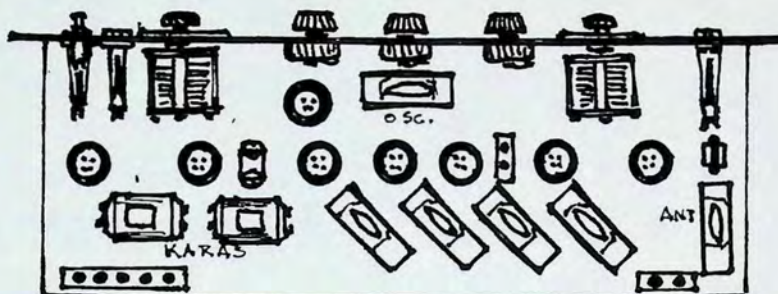
"SUPER AC"



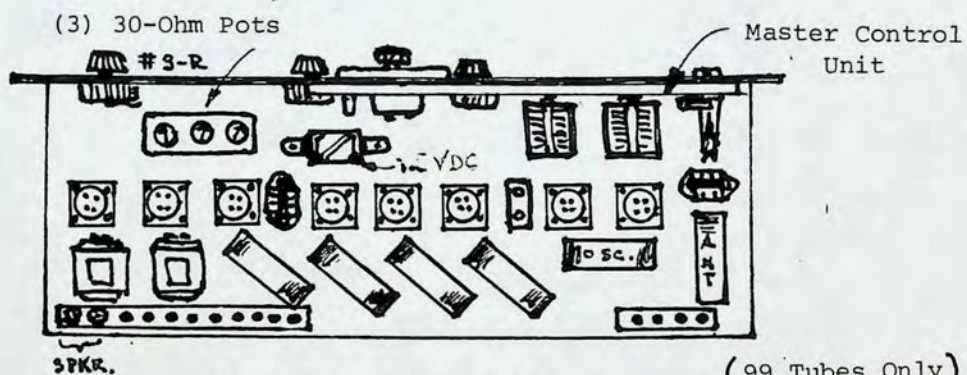
Mar-CO Dial

CALCATERRA

VICTOREEN SUB-PANEL CONFIGURATIONS

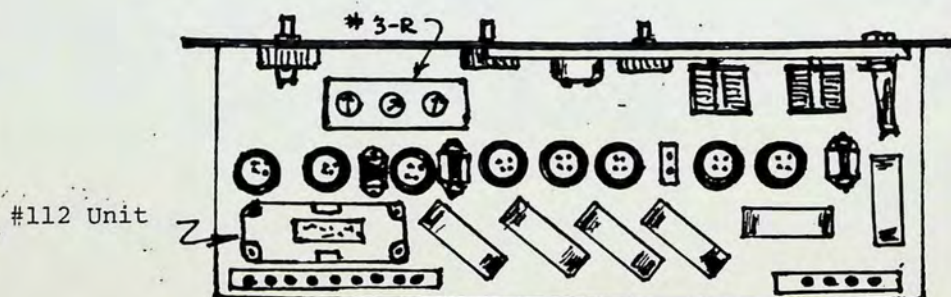


1926 "STANDARD"



1926 "CALCATERRA" VERSION

(99 Tubes Only)

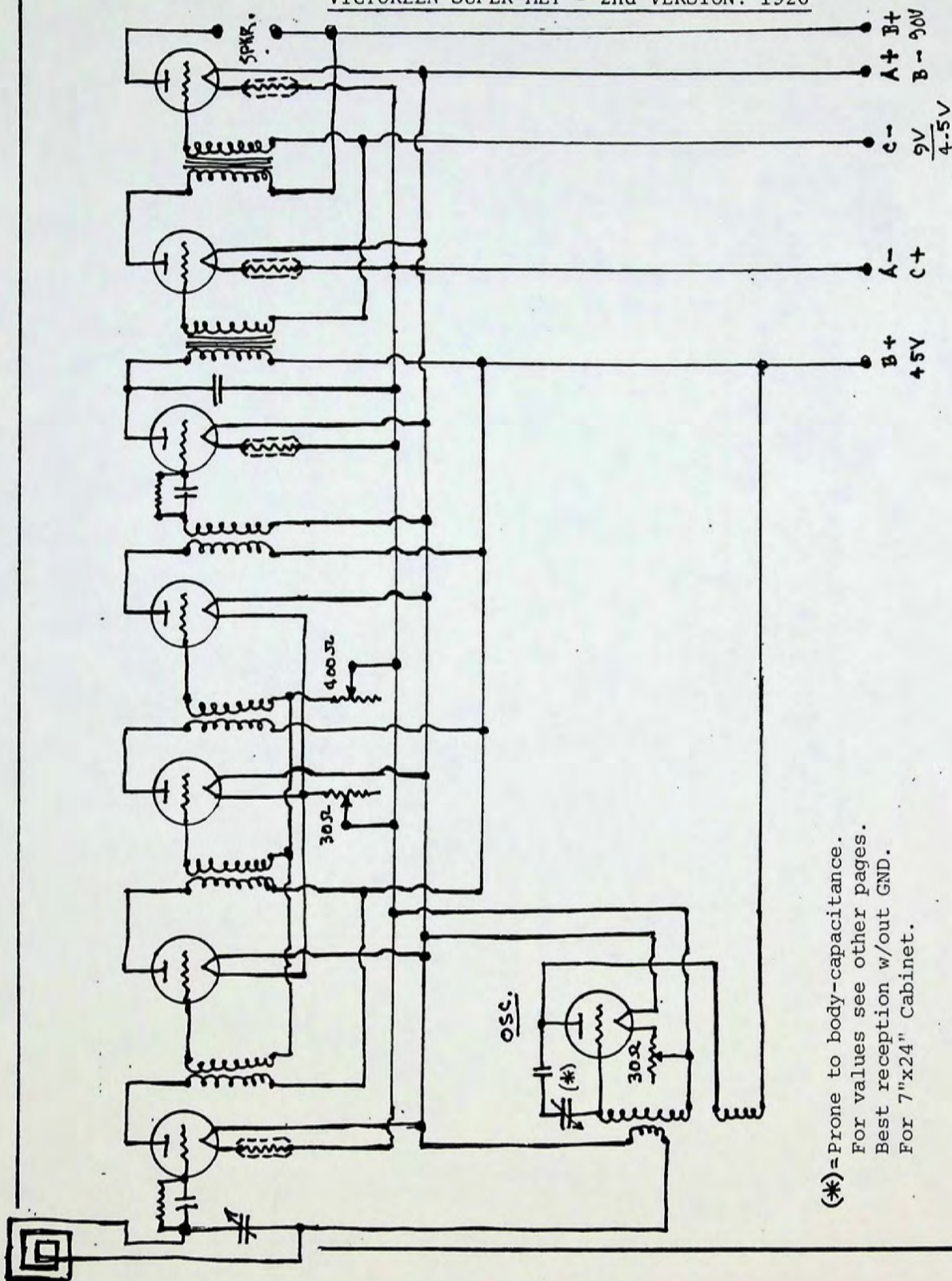


1927 "UNIVERSAL"

[illegible]

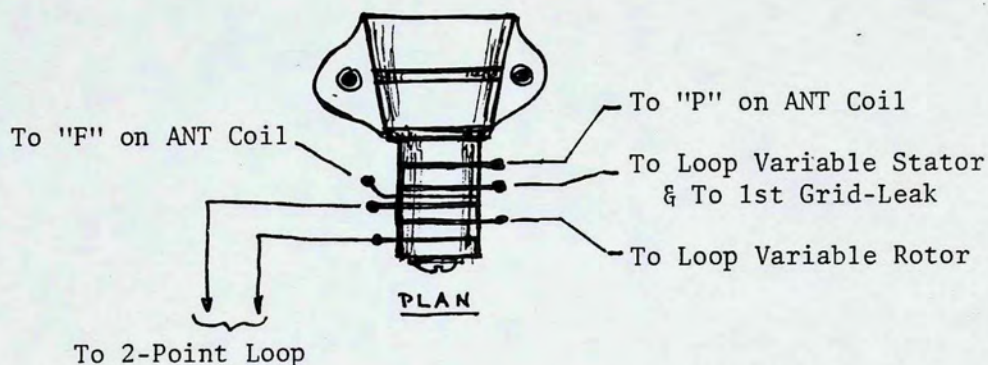
UNIVERSAL VICTOREEN, 1926

VICTOREEN SUPER-HET - 2nd VERSION: 1926

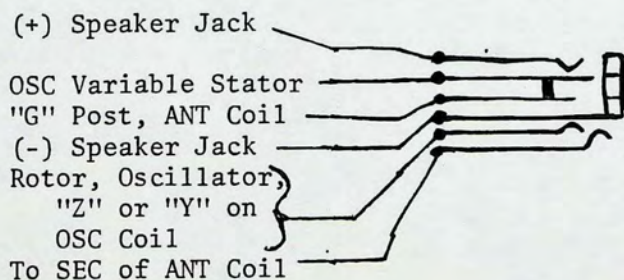


(*) = Prone to body-capacitance.
For values see other pages.
Best reception w/out GND.
For 7"x24" Cabinet.

VICTOREEN SUPER-HET 1926 SET NOTATIONS



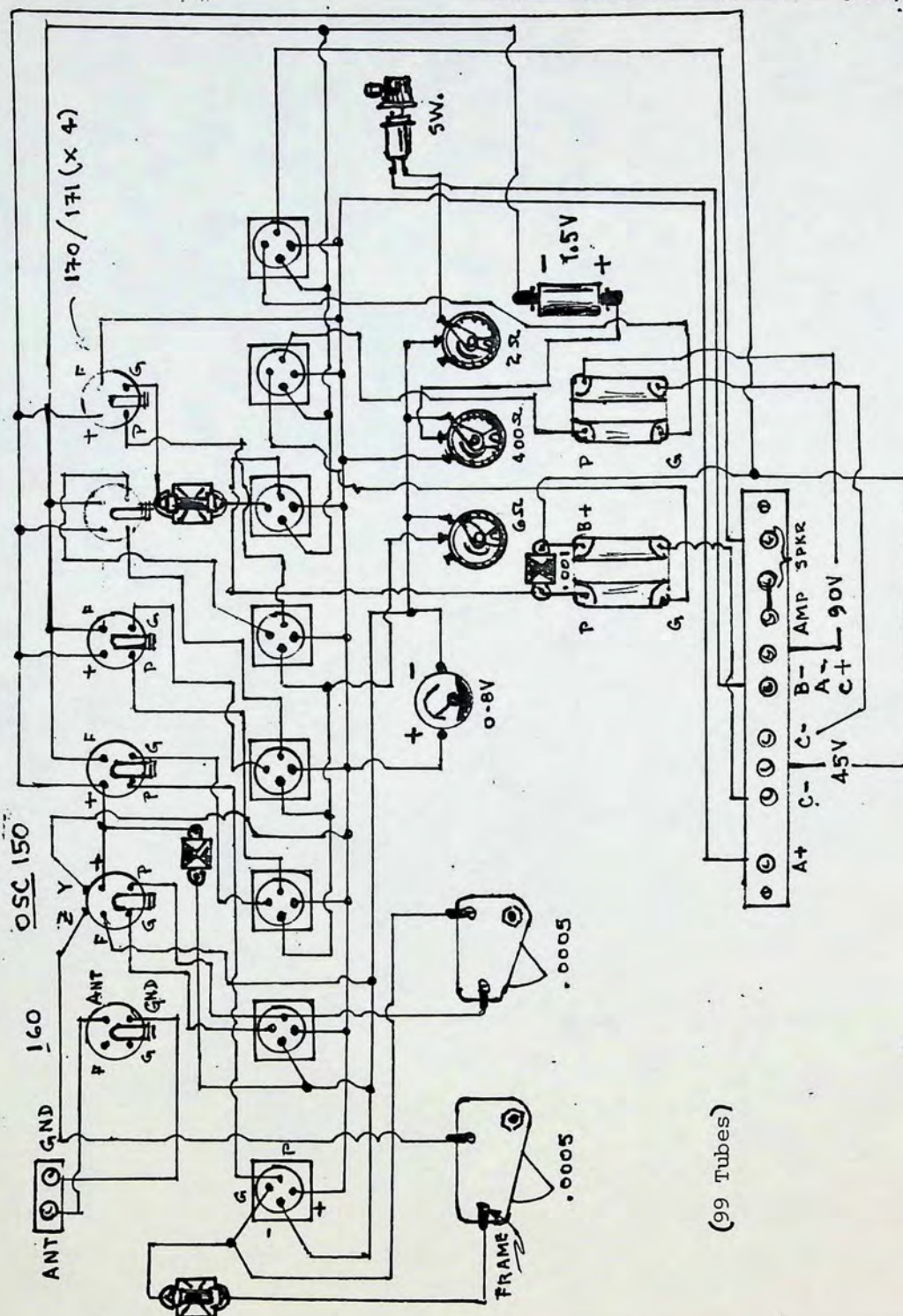
JACK SWITCH CONNEXIONS 1926



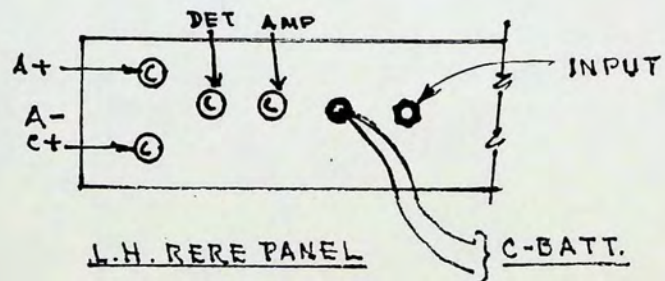
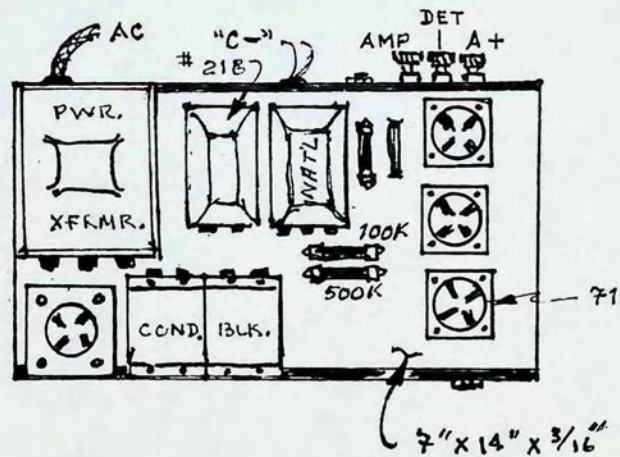
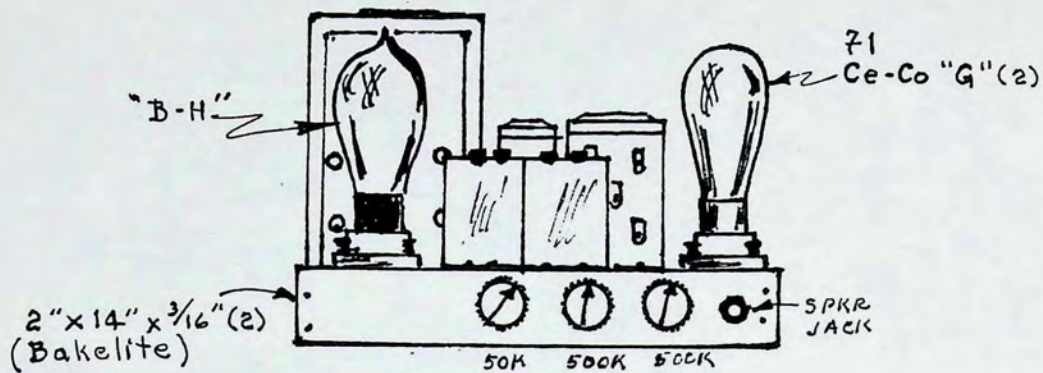
(RW 9-26)

D.P.D.T. JACK USED ON 1926
ORIGINAL SET WITHOUT AF AMP.

VICTOREEN "STANDARD" VARIANT: 1926

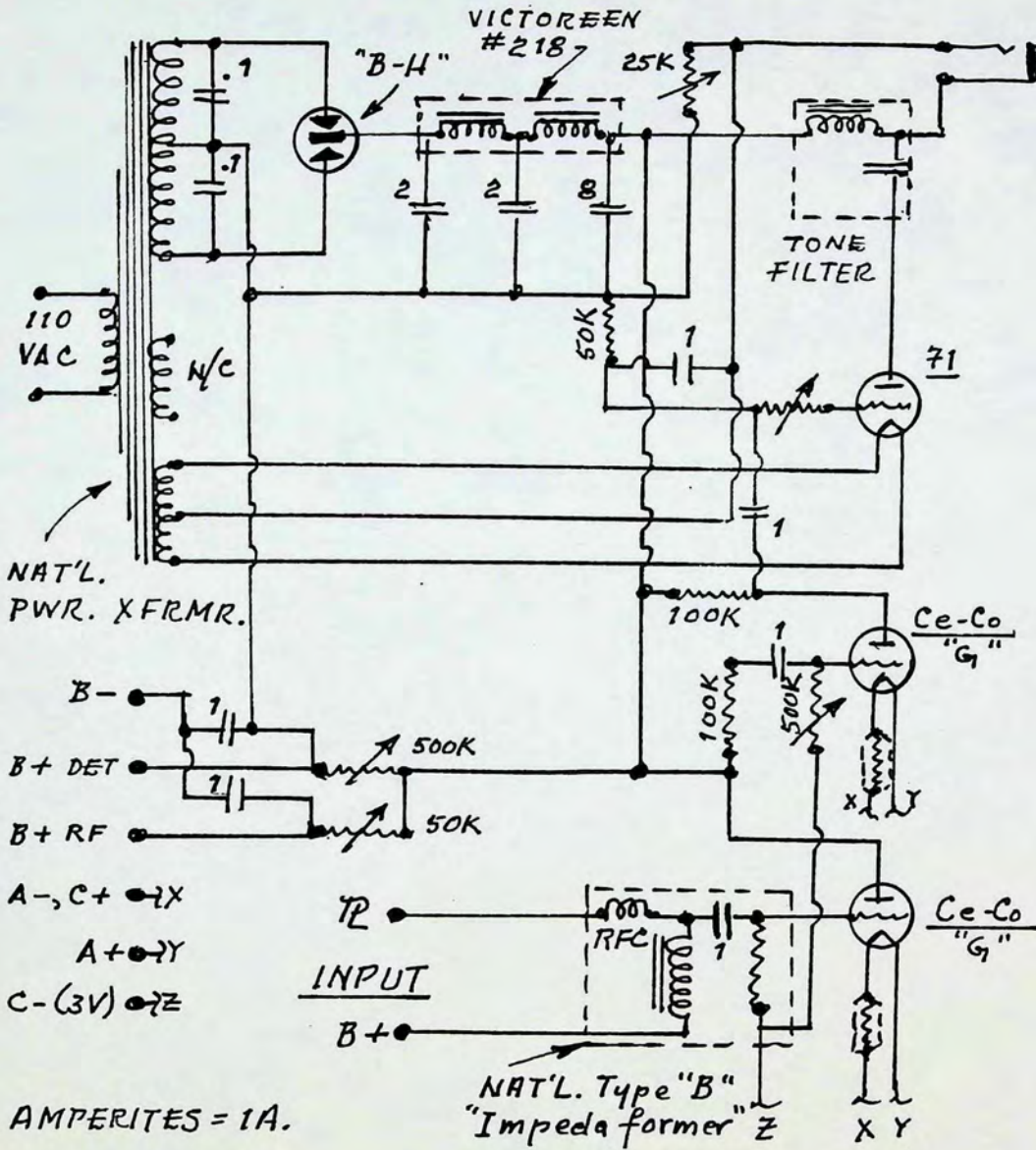


LYNCH's POWER SUPPLY FOR THE
1926 VICTOREEN (Sht.1)

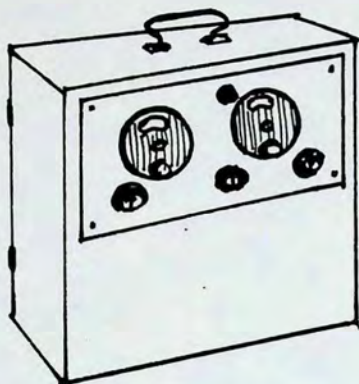


VINTAGE RADIO IDENTIFICATION SKETCH-BOOKS

LYNCH'S POWER AMPLIFIER FOR THE 1926 VICTOREEN, Sht.2



VICTOREEN PORTABLE, 1926



O/A Dim. = 10" x 12.75" x 10.75".

Panel = 8" x 10".

X99 Tubes.

#171 RF Xfmrs. (4)

#150 Osc. Xfmr.

"Meloformers" (2)

Bruno 4"Ø Dials (2).

Bruno .0005 MF Variables (2).

Victoreen 30-ohm Rheostats (2).

Victoreen 400-ohm Pot.

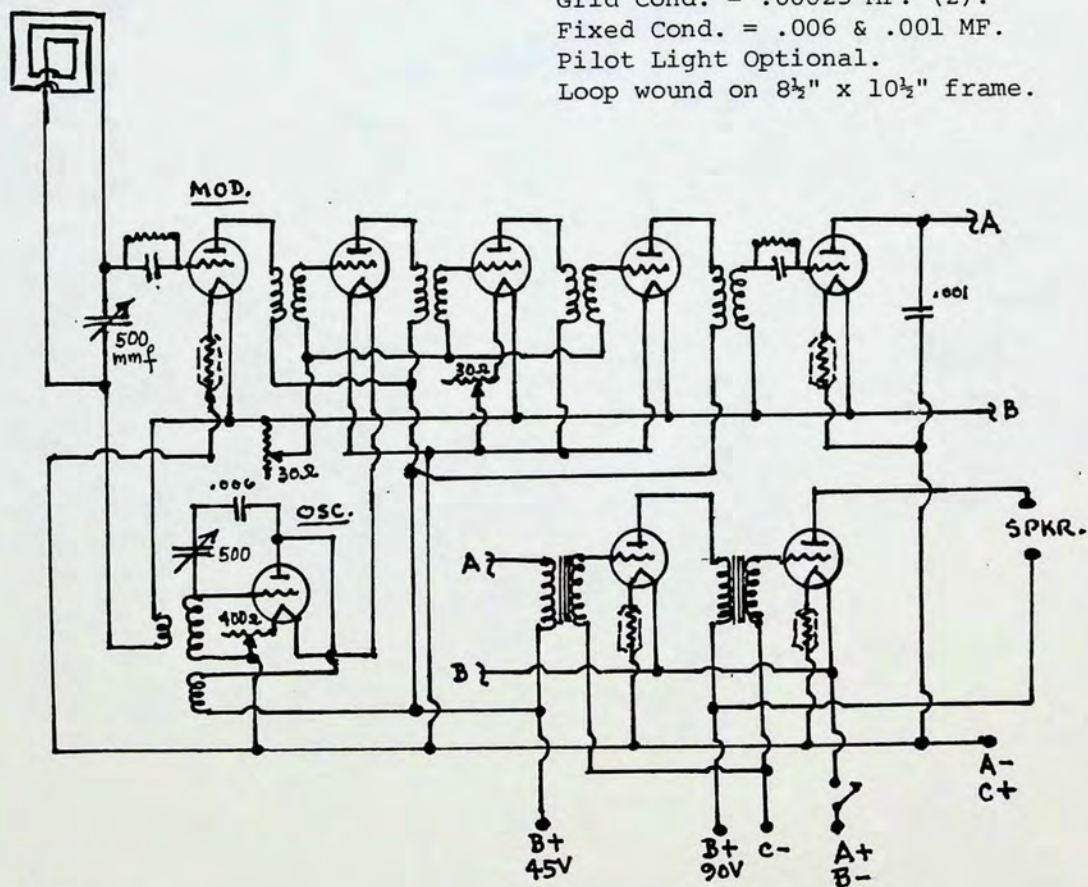
Grid-Leaks = 5M-ohm (2).

Grid Cond. = .00025 MF. (2).

Fixed Cond. = .006 & .001 MF.

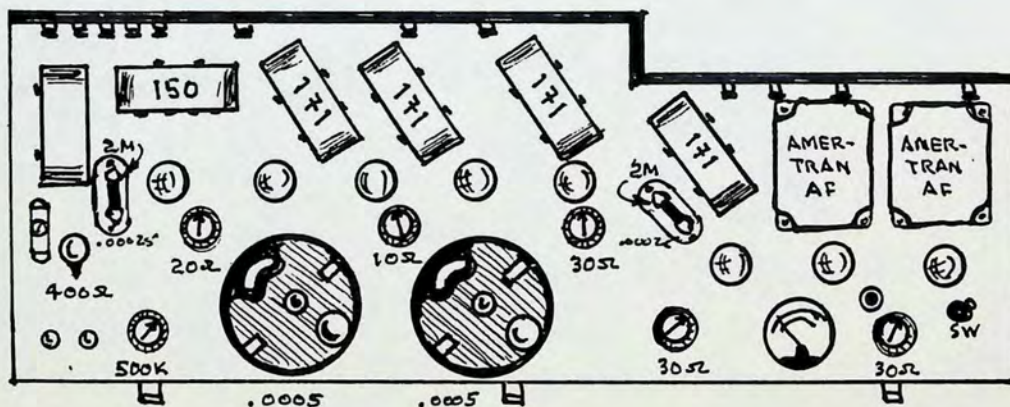
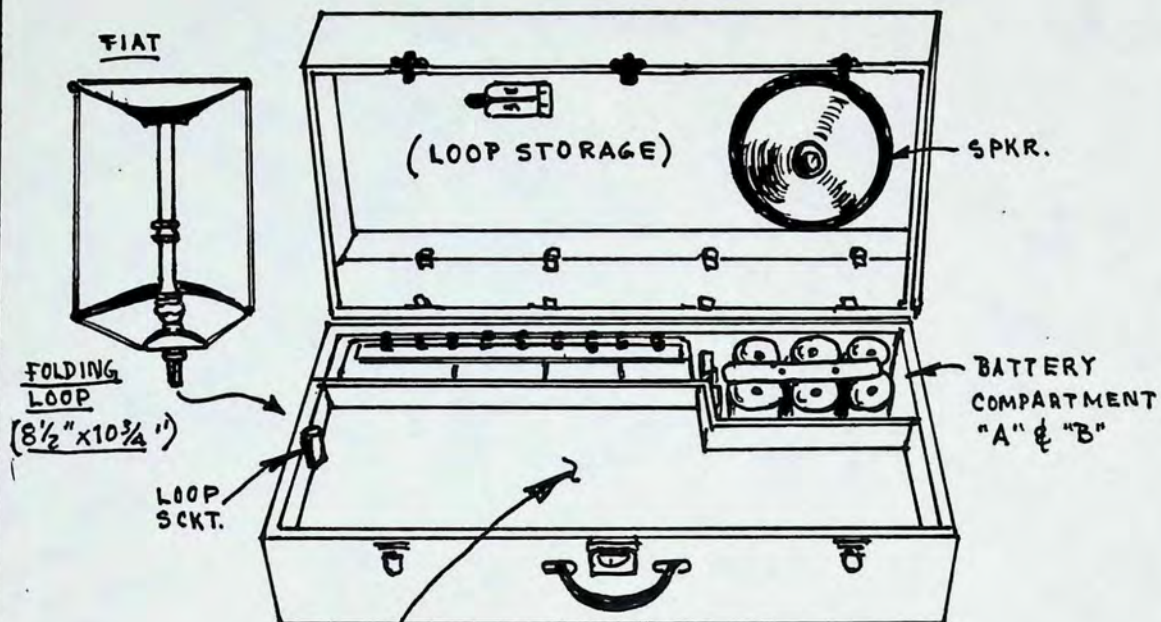
Pilot Light Optional.

Loop wound on 8½" x 10½" frame.



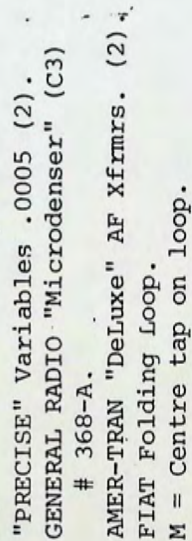
(RW 6-26-26)

VICTOREEN DeLUXE PORTABLE, 1927:Sht.1

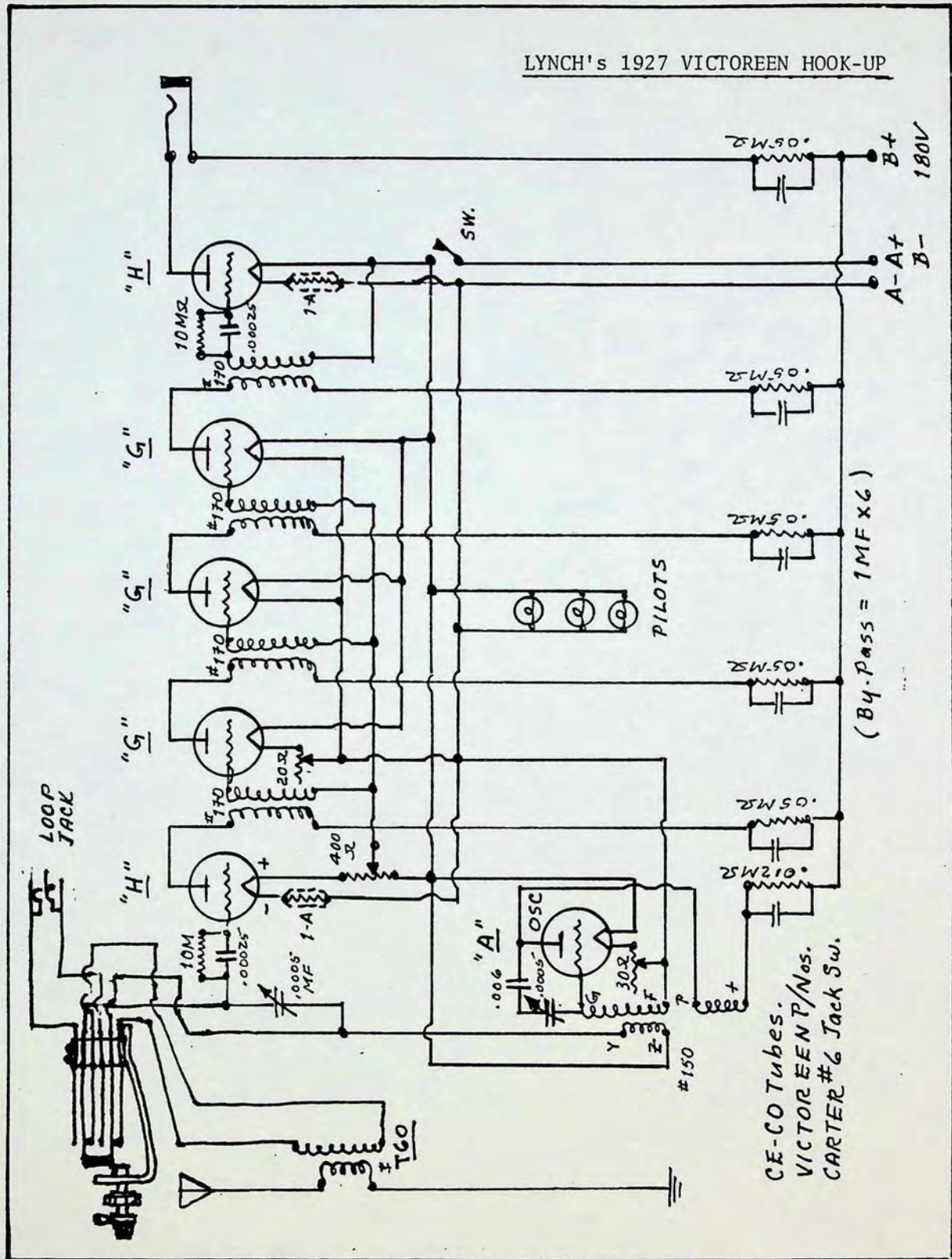


Over-All Size of Case = 9"x17"x26"
Crosley "Musicone" Speaker.
Mar-Co 4"Ø Dials (2).

(RW 5.21/28-27)



LYNCH's 1927 VICTOREEN HOOK-UP



OPERATING PROCEDURES

The circuit of any VICTOREEN super-het is/was basically sound, and all frills have been eliminated. The IF transformers - the real heart of the VICTOREEN - are tuned to a precision of 0.3 of 1%, so that matching of tubes or transformers is not required. Tubes may be 01As or UX99s, without any change in the wiring - merely adjustments to the rheostats when using dry-cell tubes.

The later integrated units offered by Walker for the VICTOREEN, such as the Master Control, the 112 AF Transformer, the 113 Power Supply Control Block, may be installed in place of any of the circuits calling for two variables, separate AF transformers, etc., without any changes to the basic circuit, other than obvious re-wiring. In passing, it might be mentioned that the 112 AF unit will handle 400VDC, if necessary, although the circuit will operate at 135VDC quite amply, with a pair of 12As in the audio stages.

Regeneration can be incorporated into any VICTOREEN variant, but you will gain nothing by so doing. The original laboratory models were tested, using the 36" Western-Electric PM cone speakers and the VEE coil antenna. If you use an outside wire antenna, it should not be more than 50' long, including lead-in. A GND is essential.

The following data have been taken from the original data supplied with VICTOREEN kits, with a couple of additions learned from actual experience here.

TUNING THE RECEIVER:

1. The ANT CPLR is not required if a LOOP only is used. If a wire ANT is used, simply twist the knob on the Loop Jack Switch "OFF".
2. Switch on "A" filament supply and adjust the first rheostat (6 ohm) until the Voltmeter reads 5V for battery tubes, or 3V for 99 tubes.
3. Place the potentiometer (400 ohm) at mid-point.
4. Place IF tubes rheostat at the farthest RH position.
5. Set all other rheostats as in Step 4.
6. Assuming "A" and "B" voltages check-out (including "C" voltage, if your circuit calls for such), rotate the ANT dial (LH) until a signal is heard. Center on the signal; then slowly rotate the OSC dial (RH) until the signal peaks.

7. For each setting of the OSC dial - one degree at a time - it is necessary to rotate the ANT dial until resonance is established between the two dials.

NOTE

If you have the VICTOREEN Master Control Unit, turning but one dial will suffice.

8. Increase in VOLUME is accomplished by turning the potentiometer arm to the negative side of the unit.

9. On extreme DX signals, the IF rheostat must be very carefully adjusted, a hair at a time. Once the Rheostat has been set on a fairly distant station, no further adjustment is required.

* * *

REGENERATION: As previously mentioned, regeneration can be added to any of the VICTOREEN circuits, provided you use a 3-tap LOOP with a .000045 MFD variable (midget type). It is not recommended, but if you are truly interested, write and request hook-up data from Olde Tyme Radio Company.

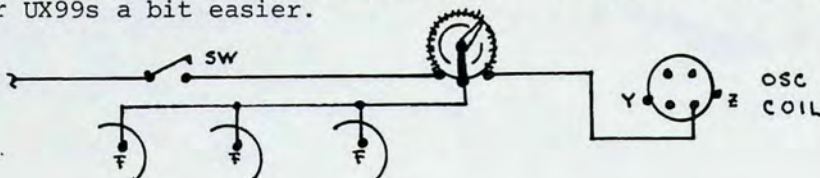
* * *

TROUBLE-SHOOTING:

1. Check all connexions carefully.
2. Test all tubes in a mutual conductance tester. The fact that a tube will illuminate in most any tester is no indication that it is a good tube.
3. Hand-capacity will be noted if the Rotor and Stator plates terminals on the OSC variable have been shifted.
4. A ringing noise which gradually builds-up in volume is usually due to a defective tube in the 2nd DET stage. Change the tube to another position.
5. Noises of a general but definite character are usually generated by defective components, especially if you are using the early flat wire-wound-type resistors or paper/foil condensers. Using modern equivalents will not, or should not bother your conscience. The point is to get the CIRCUIT working within its original parameters,
6. Maximum selectivity and volume are obtained by placing the potentiometer about one-quarter from the negative end.

NOTATIONS:

1. Some early set-builders replaced the voltmeter with a potentiometer (3 terminals), as shown below, with the arm balanced between 1 and 3 terminals. The only advantage in using a pot. is, apparently, that it allows you to manipulate the voltage for 01As or UX99s a bit easier.

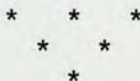


2. The note to set rheostat and pots. at approximately one-quarter from the negative end has proved to be critical. In manipulating them you will find that there is a time-lag between a new setting and a change in the signal output.

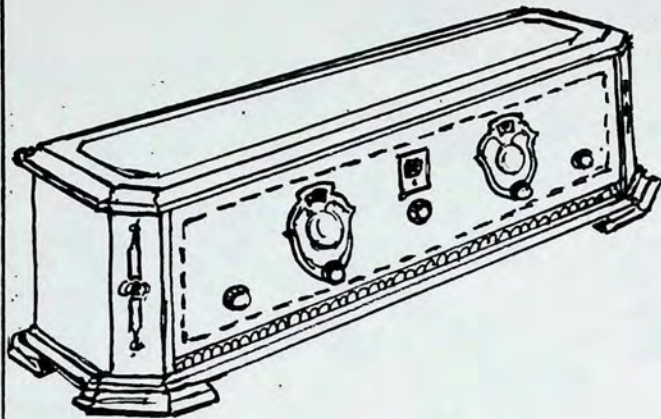
3. The VICTOREEN with transformer-coupled AF out is prone to howl if VOL is set too high, which is easy to do. Placing a conventional resistor or capacitor across the terminals of the first AF transformer is useless, and simply complicates the tuning. The VOL control for either 1st or 2nd Stage should always be set at minimum.

4. The VICTOREEN has proved to be the most sensitive of all popular kitted sets for loop reception. The pot. next to the OCS tuning condenser should always be set at minimum and the other controls manipulated to smooth out the signal. It is easy to over-load the Modulator/First RF tube.

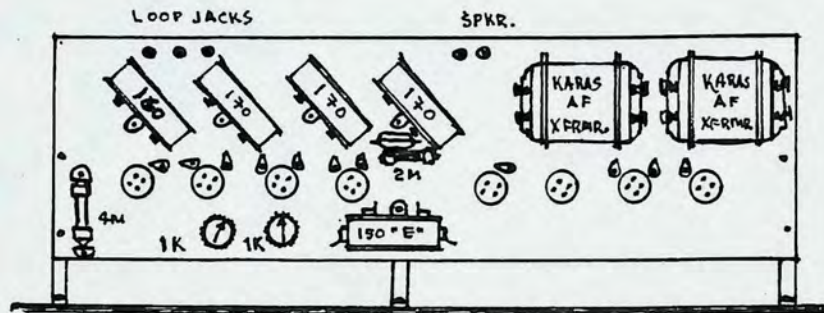
If you use a 3-point Loop, the centre tap must always go to the "Y" terminal on the OSC coil.



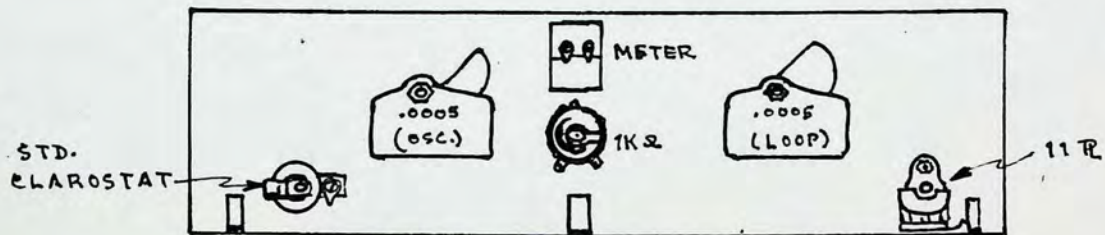
VICTOREEN AC MODEL, 1927 VARIANT



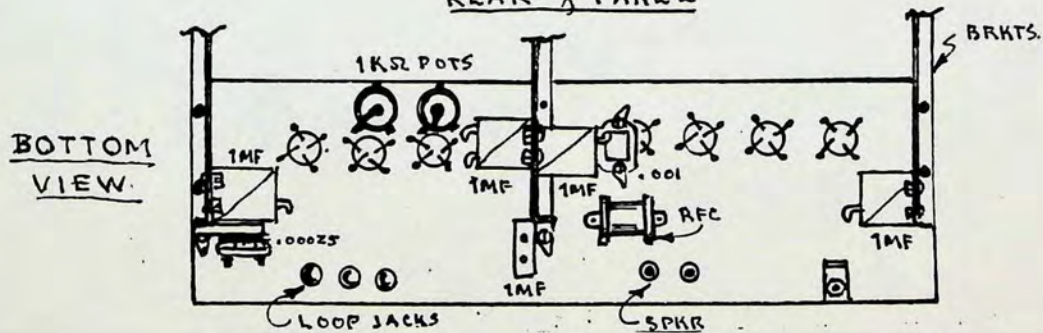
Corbett Type "C" Cabinet.
Lignole Inlaid Walnut Panel.
Lignole Sub-Panel 7" x 24".
Westinghouse 492418 VM.
Adjustable Benjamin Brackets.
Karas "Harmonik" AF Xfrmrs.
Bodine DeLuxe Loop.
Samson RFC.
Hammarlund 11-Plate Midget.
Standard "Clarostat".



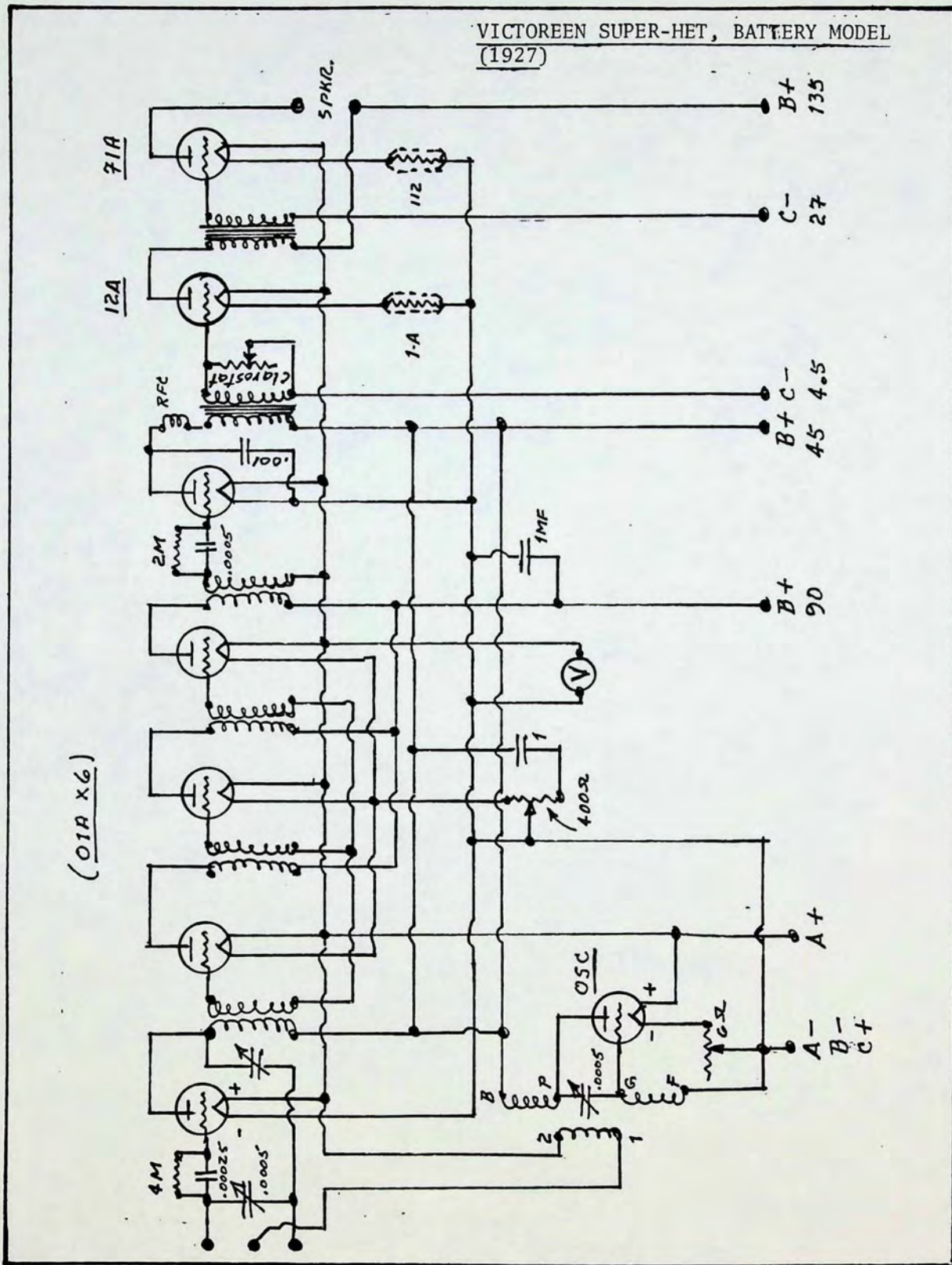
PLAN VIEW

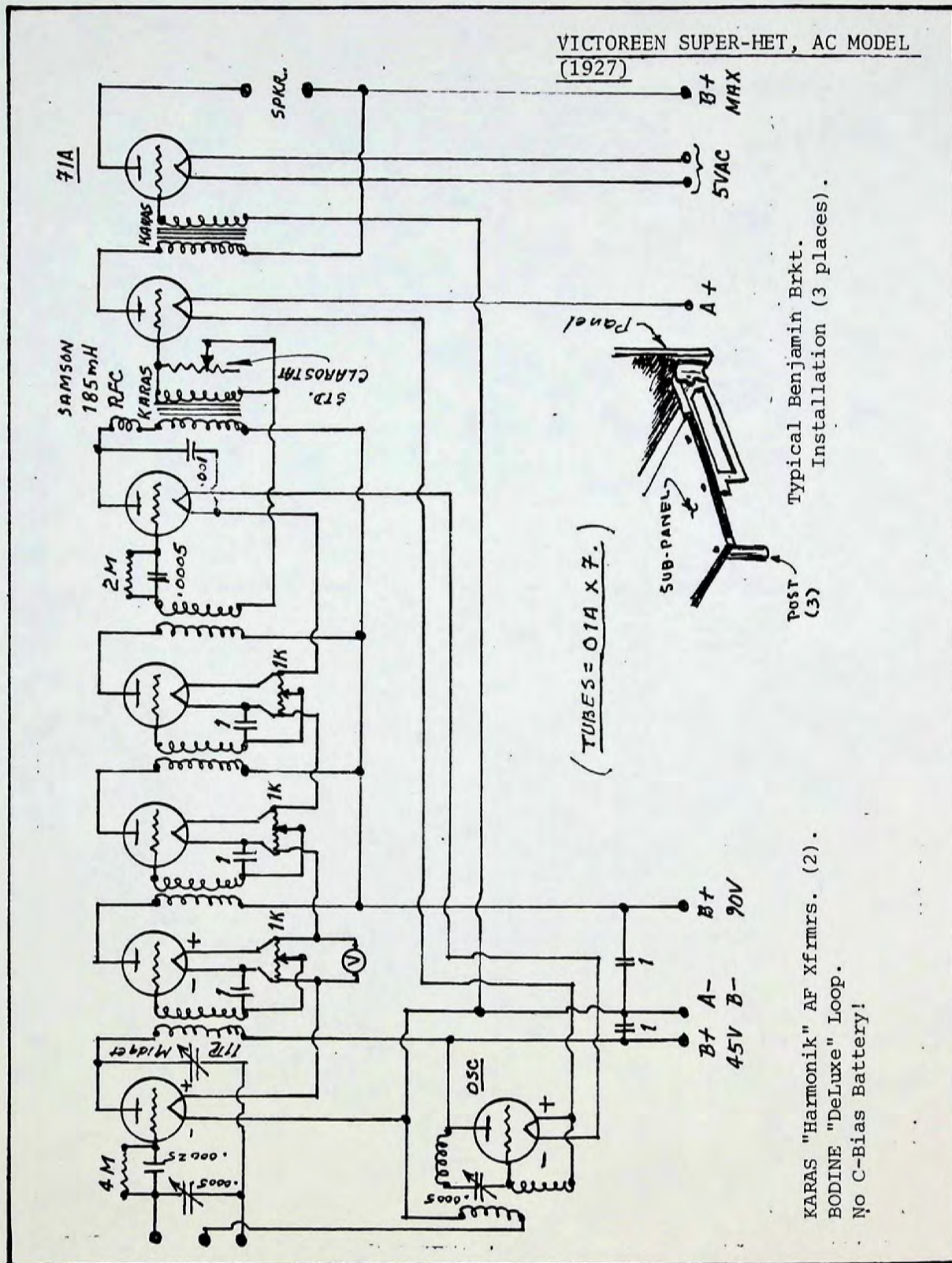


REAR OF PANEL



VICTOREEN SUPER-HET, BATTERY MODEL
(1927)





UNIVERSAL VICTOREEN SUPER-HET, 1927

OPERATING INSTRUCTIONS

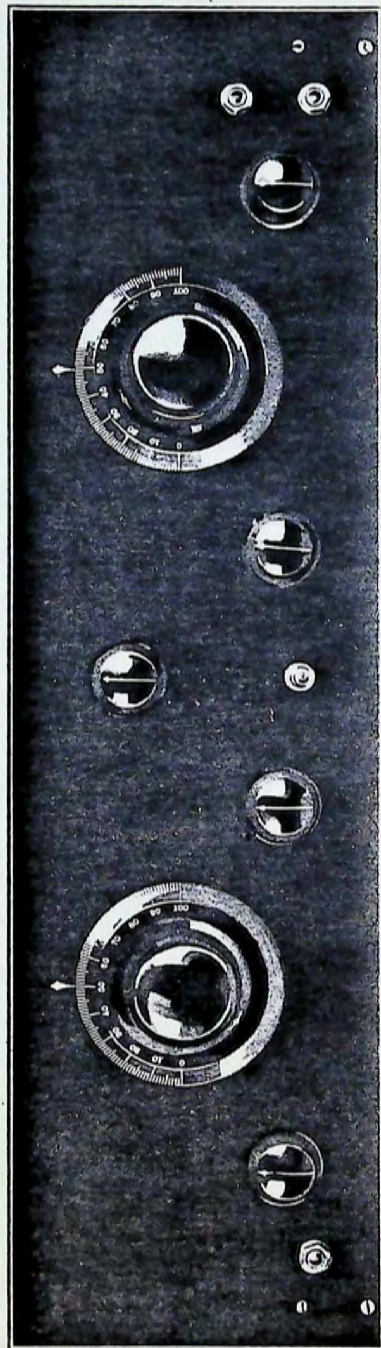
1. Turn set on with both pots. (1K) at the negative side.
2. Turn CLAROSTAT until set squeals.
3. Meter should read 4.5 to 5 volts.
4. Rotate midget variable until 1st DET goes into oscillation
5. Back off until oscillation stops, just.
6. Set loop dial at 50.
7. Rotate OSC dial slowly from 30 to 70.
8. If nothing is heard, set loop dial at 52 and repeat (7).
9. Set both dials at point of maximum signal.
10. Rotate loop for best orientation.
11. Rock 1K pots. while varying pot. on panel; when best operating point is reached, 1K pots. need not be altered thereafter.

FOR BATTERY MODELS:

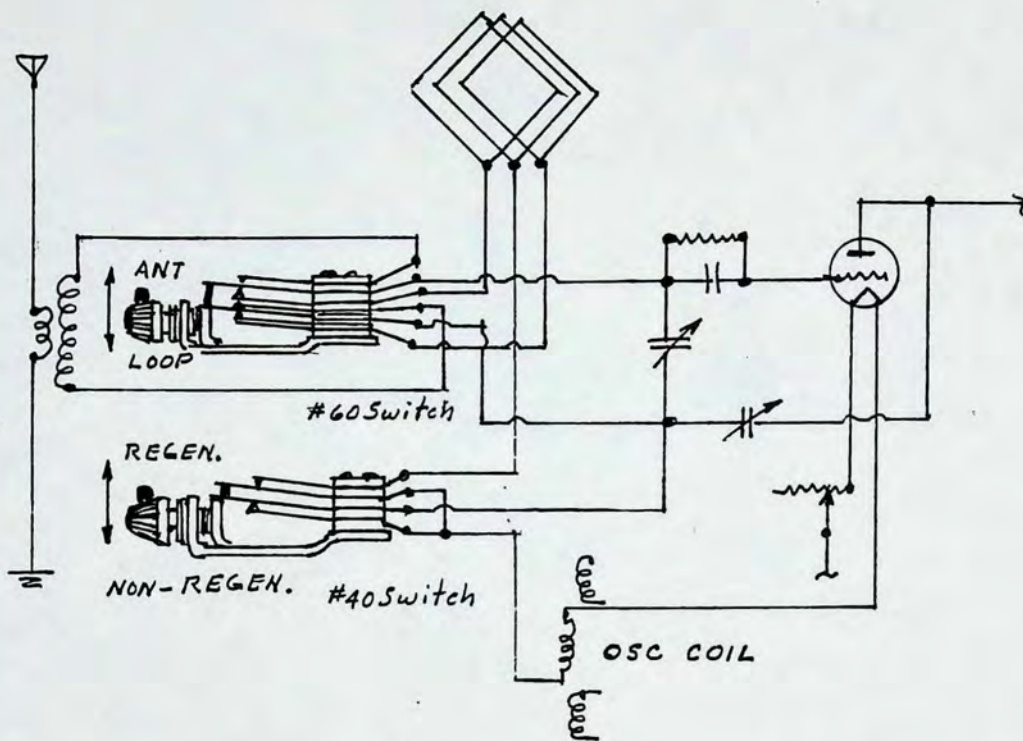
1. Replace 1K pots. with a 400-ohm pot; mount under meter.
2. Filaments must be wired in series.
3. Replace (2) 1K pots. on sub-panel with (2) 6-ohm pots.
One controls the OSC and the other, the 1st DET.
4. First AF tube is controlled by an Amperite.
5. 71A tube is controlled by a 112 Amperite.
6. A 4.5 C-battery is used to bias the 1st AF tube.
7. C- 27V is used on the 2nd AF tube.
8. With 180V on the 71A plate and a 45V C-battery, an output coupling device must be inserted between the 71A and a speaker.
9. Original tubes were ELEKTRON-make.

The Victoreen

*A Super-Heterodyne
Of Great Performance*

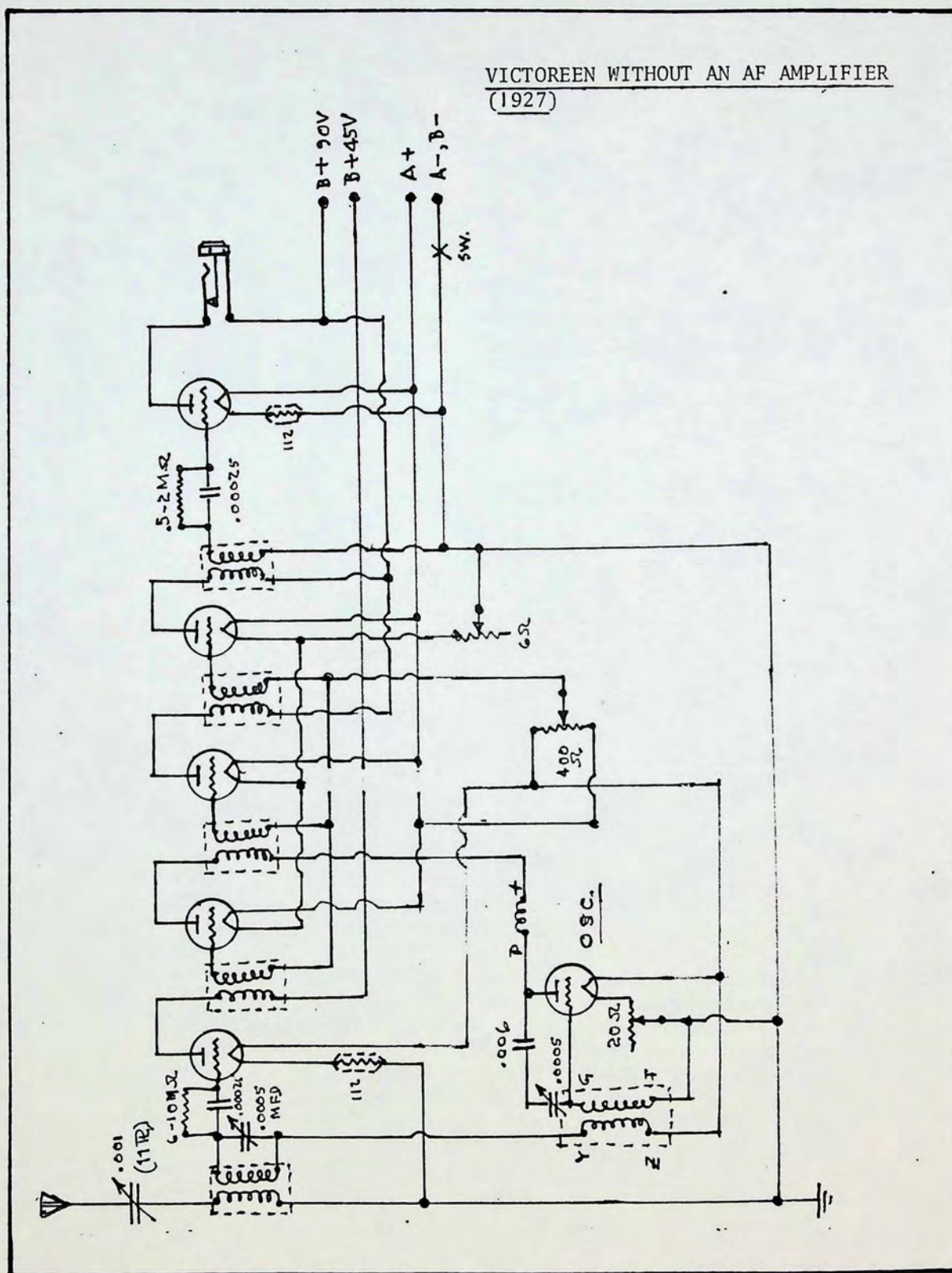


THE NELSON "VICTOREEN SUPREME", 1926

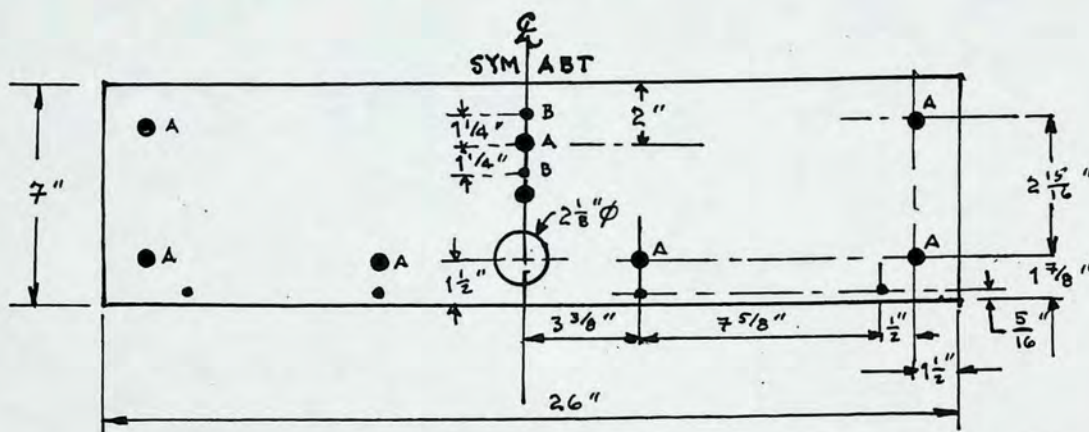
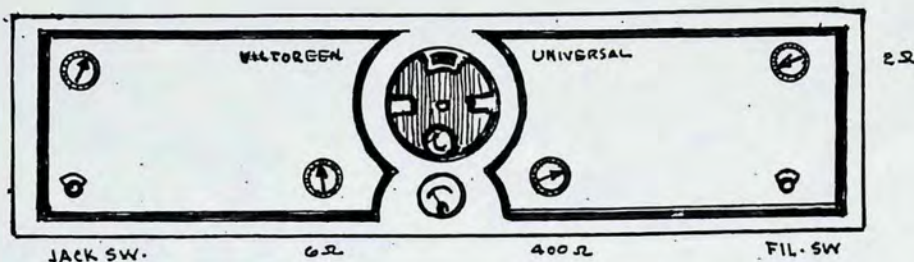


The Nelson Electric Company of Chicago was a wholesale dealer of all major brands of Radio parts and accessories. When the popularity of the VICTOREEN became obvious in the marketplace, dealers scrambled to climb onto the band-wagon by offering substitute parts. The people at Nelson designed the above configuration for any VICTOREEN up to that time. Its virtues were that it permitted the owner to connect an antenna, loop, and a ground connexion to the set, and to select or reject regeneration by flipping a switch. Previously, each connexion required a single operation in itself. Nelson offered the VICTOREEN kit with their modification for \$93.60, and called it the "Victoreen Supreme" kit. It should be mentioned that subsequently, Geo. Walker, the distributor of the original VICTOREEN parts, combined the two switches shown, details of which you will find elsewhere in this Monograph. The rest of the circuit not shown was the standard VICTOREEN circuit, q.v.

VICTOREEN WITHOUT AN AF AMPLIFIER
(1927)

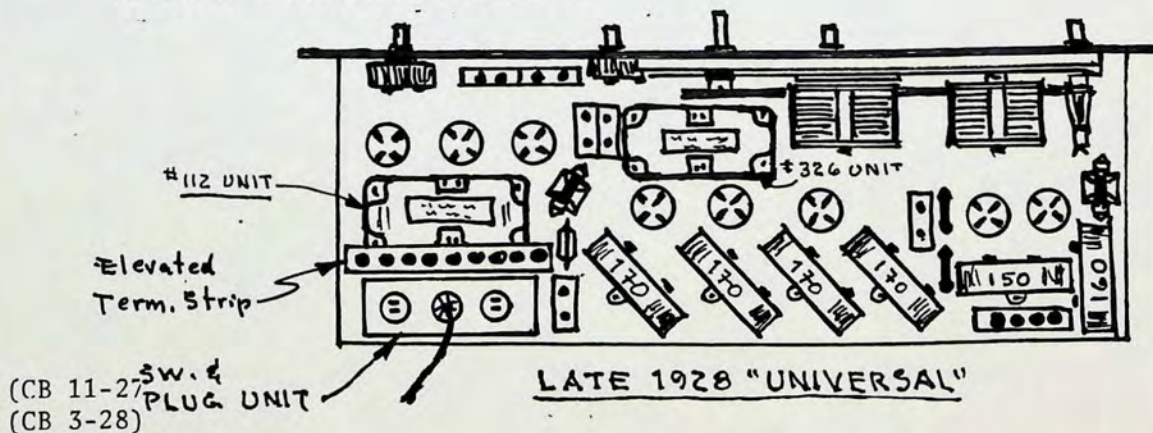


VICTOREEN "UNIVERSAL" SUPER-HET, 1928

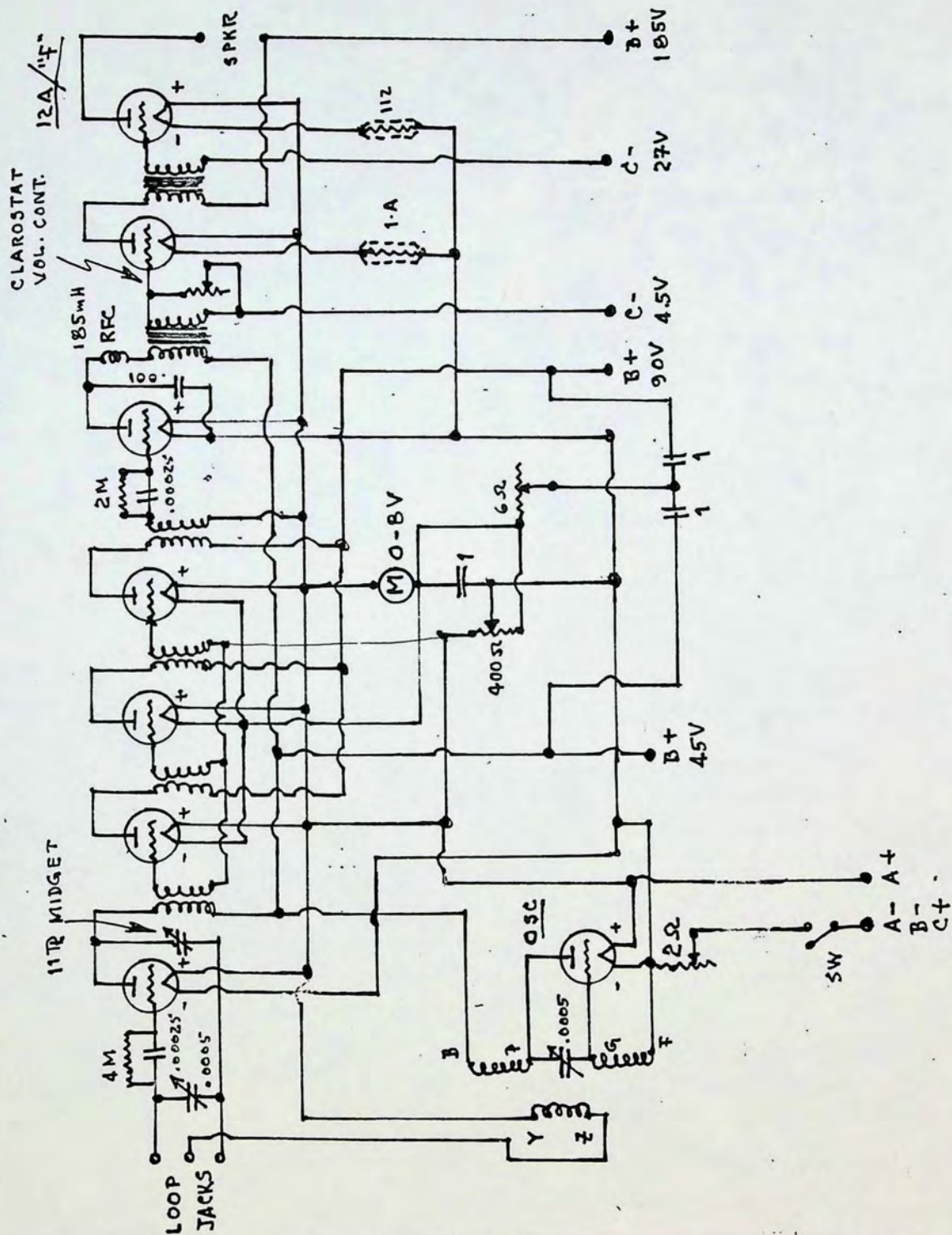


A = 7/16" ϕ B = 5/32" ϕ
 Lettering = Gothic English, Gold.
 Ce-Co "A" & "F" Tubes.
 Baseboard = 9.5" x 25.5" x 5/8".
 ANT Coil = Victoreen #160
 OSC Coil = Victoreen #150.
 RF Coils = Victoreen #170/#171.

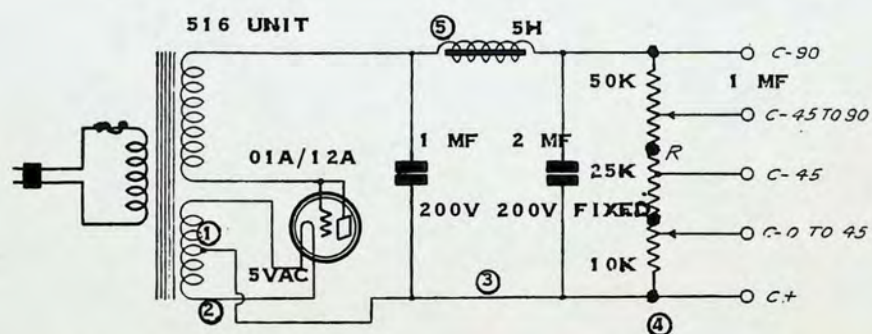
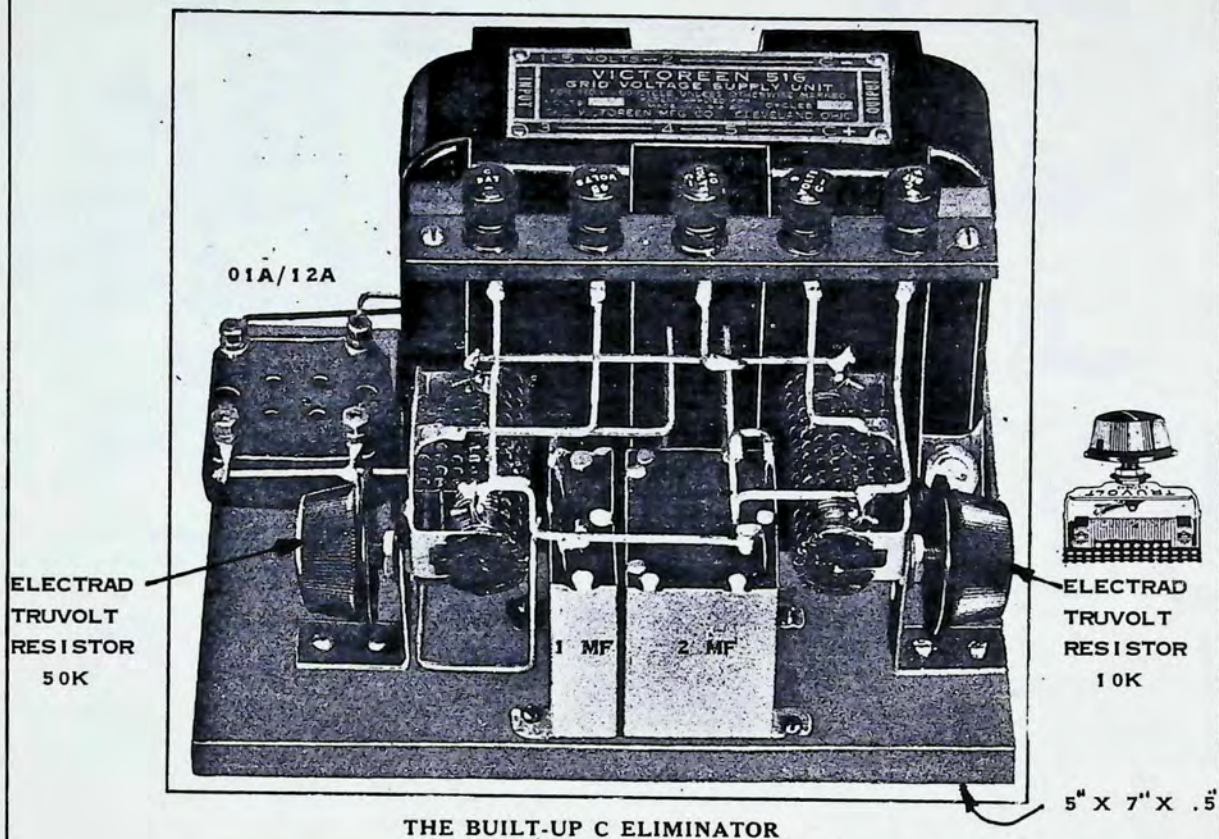
Sub-panel brackets.
 Jewell #135 Meter, 0-8VDC.
 #60 Yaxley Jack Switch.
 Lignole Panel = 7" x 26" x 3/16"



VICTOREEN "UNIVERSAL" SUPER-HET; 1928



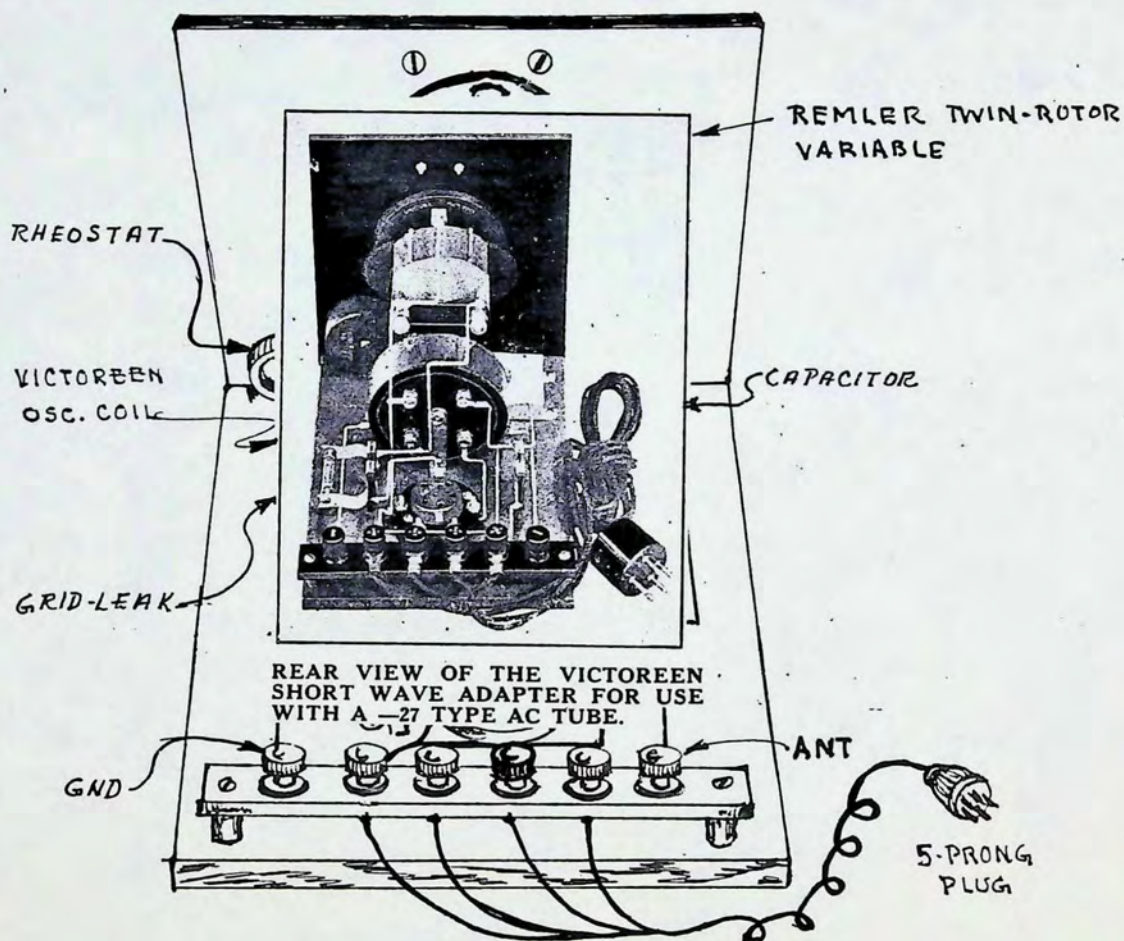
New Victoreen Circuit



Circled numbers = terminals on VICTOREEN #516 unit.

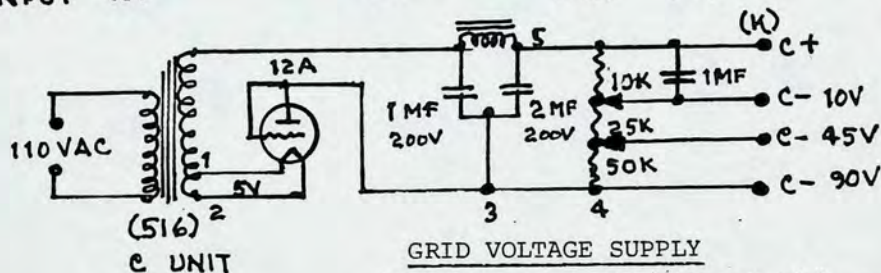
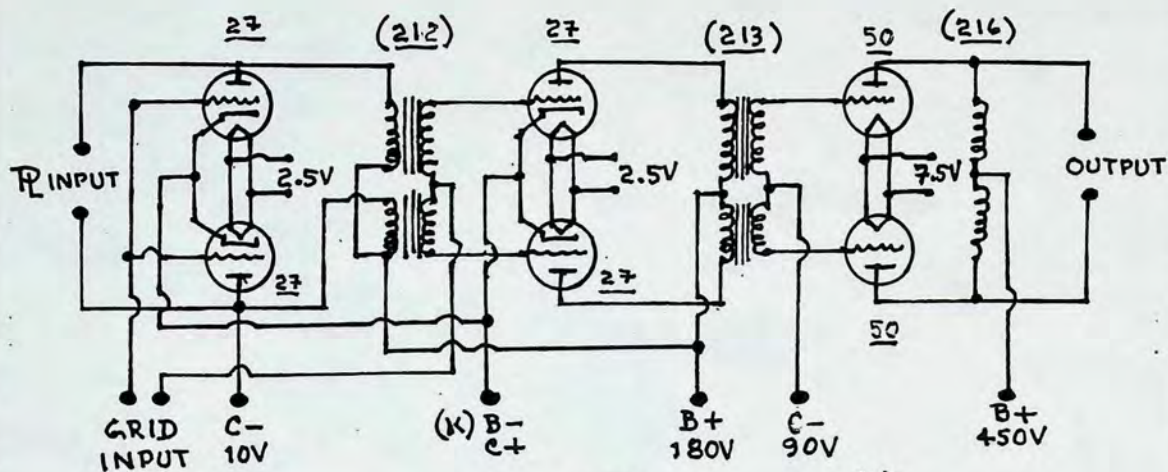
THE CIRCUIT DIAGRAM OF A C BATTERY ELIMINATOR SUCH AS THE
VICTOREEN 516 C SUPPLY UNIT.

VICTOREEN SW. ADAPTER, 1928
(For use in sets with 27 DET)



(RW -28)

VICTOREEN DUPLEX AMPLIFIER, 1928:Sht.1



Base board = 5 1/2" x 7 1/2" x 1/2", IF SEPARATE.
(5 Binding Posts)

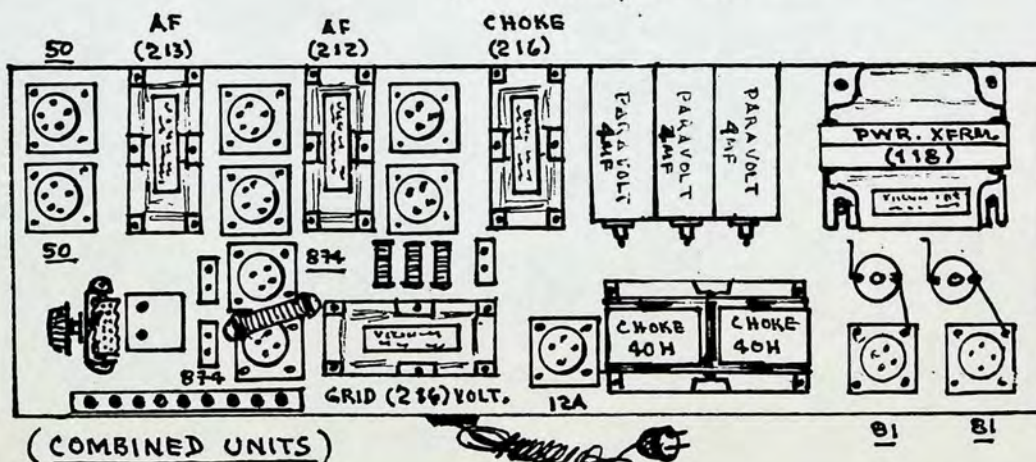
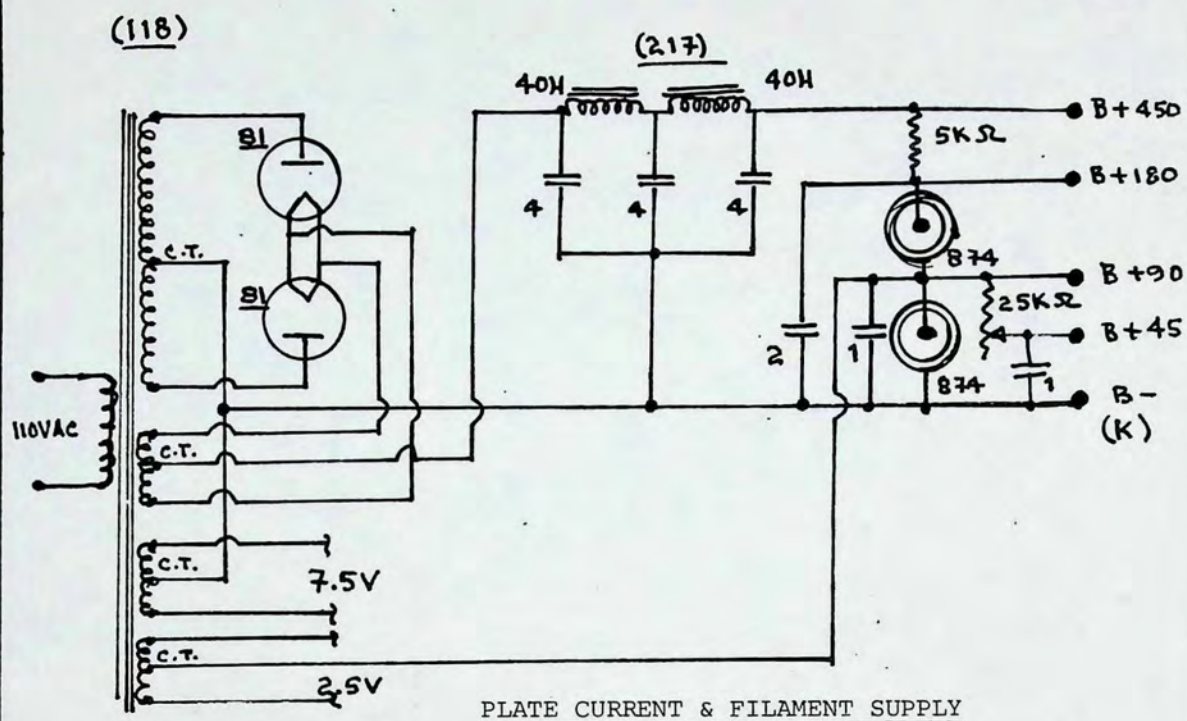


Plate supply is conventional in configuration, with (3) 4MFD electrolytics, (2) 40H chokes, 5K, 20W resistor, 25K rheostat, (2) 1MFD condensers.

(RW 11.3.28)

VICTOREEN DUPLEX PWR. AMPLIFIER, 1928
(Sht. 2)

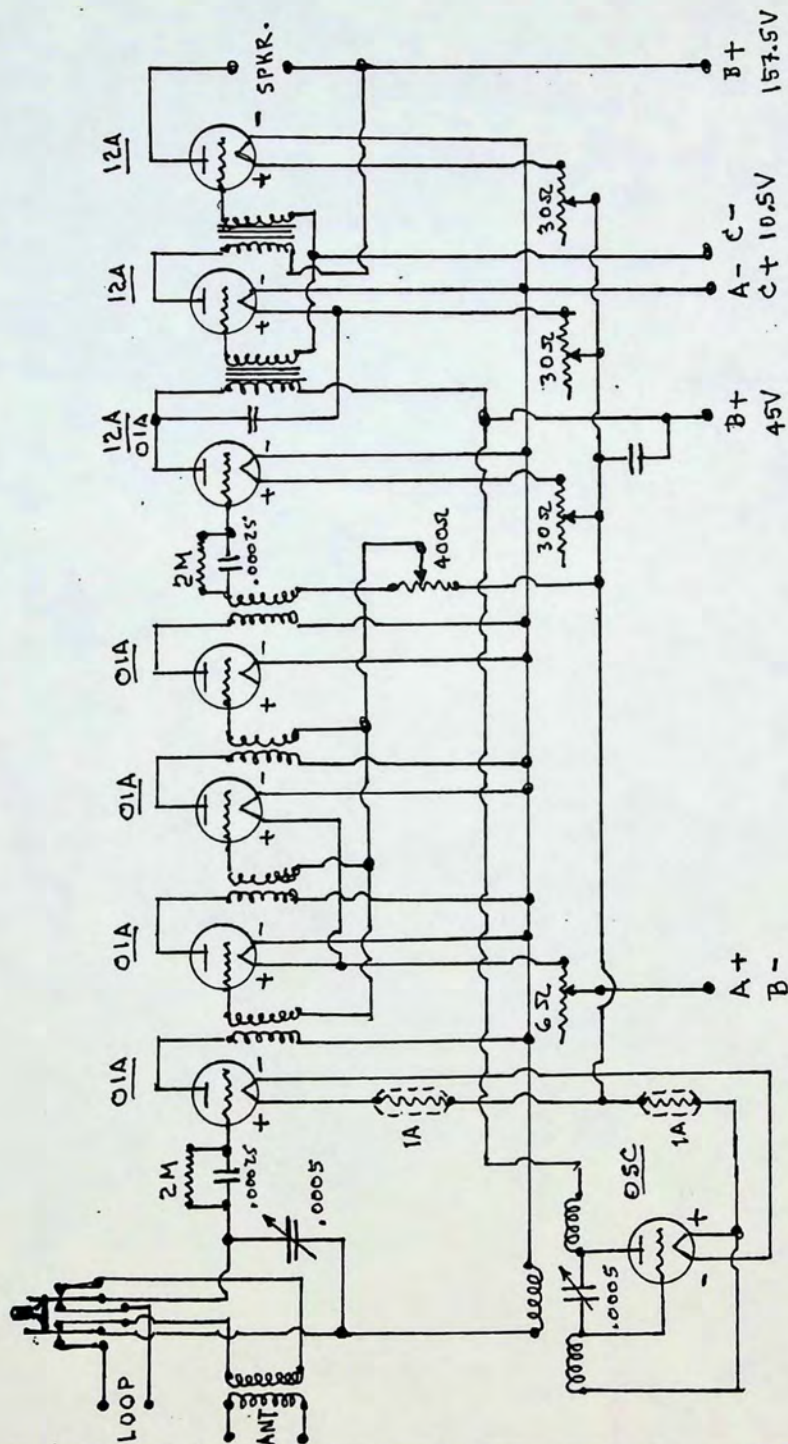


NOTES :

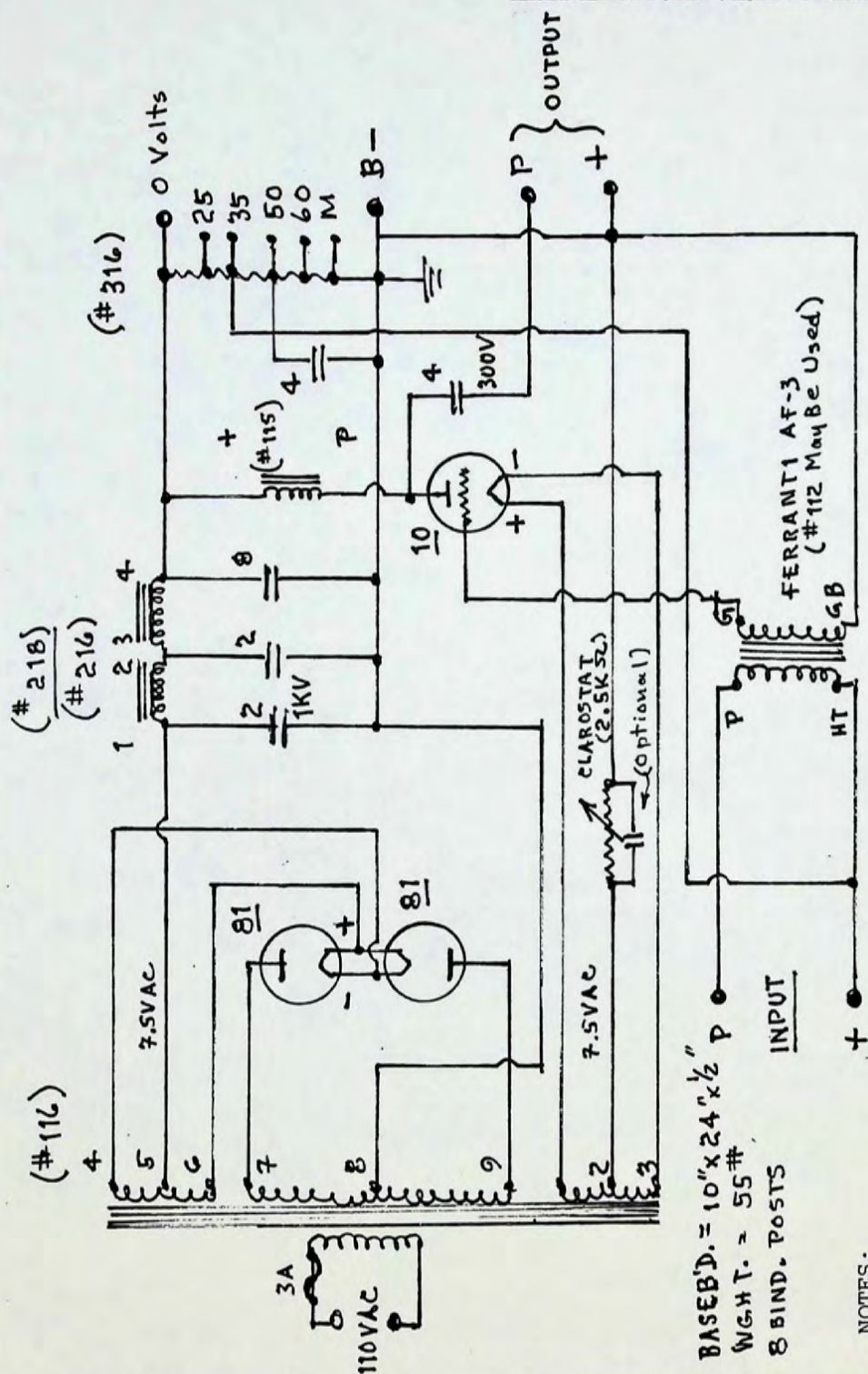
1. Ground all points marked "K" on all schematics.
2. C.T. of 2.5V winding used to eliminate hum.
3. 3-Digit numbers are VICTOREEN numbers.
4. 25K was an ELECTRAD "Truvolt" 20W tubular variable.
5. "Grid Input" was used when Amplifier was to be used as a 3-stage circuit, or when first two tubes were used as Detectors.
6. "Plate Input" was used when only two stages were required, or when a separate DET was used.

(RW 11.10.'28)

VICTOREEN SUPER-HET, 1926 ORIGINAL SET
VARIATION MADE IN 1928

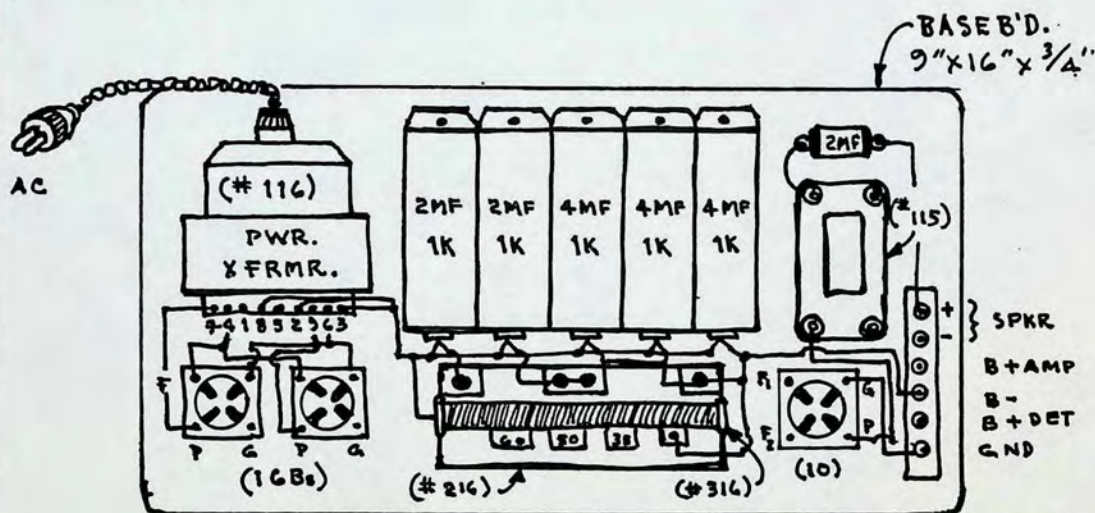


VICTOREEN POWER AMPLIFIER, 2nd Version
(1927)



1. All capacitors contained in TOBE B-Block. Seperate capacitors may be substituted - e.g., modern electrolytics.
2. VICTOREEN unit part numbers shown as 3-digit numbers.

(RW 12.24.27)


$$F_2 = T O^H 1 \text{ ON XFRMR}$$

PLAN VIEW

(RW 10.22.27)

SOME GENERAL NOTES

The first public prominence given the debut of the VICTOREEN Super-Het was by one H.B.Silbersdorff, the "Radio Editor" of the New York "Evening World" newspaper. The date was 27th September, 1924. Silbersdorff was an Associate Member of the I.R.F., and lived in Jersey City - before the Mafia had discovered New Jersey. Other "radio editors" of other newspapers were quick to follow with equally glowing reports on the VICTOREEN Super-Het, but the first of anything should always be noted.

While all manufacturers of super-hets of the period claimed that their's was the most selective and sensitive, objective testing revealed a wide discrepancy among such sets, tested under identical conditions. In the findings were the following:

1. Some sets gave excellent tone but lacked sensitivity.
2. Some sets, while fairly sharp, sacrificed flat-top IF/RF peaks.
3. Some sets had very weak AF sections.

The IF coils designed by John Victoreen were an authentic advance in coil design, and obviated all of the problems listed. He actually went so far as to guarantee a precision of one-third of 1% between each coil. There was ample media verification of VICTOREEN Super-Hets pulling in European stations, as well as across the U.S.

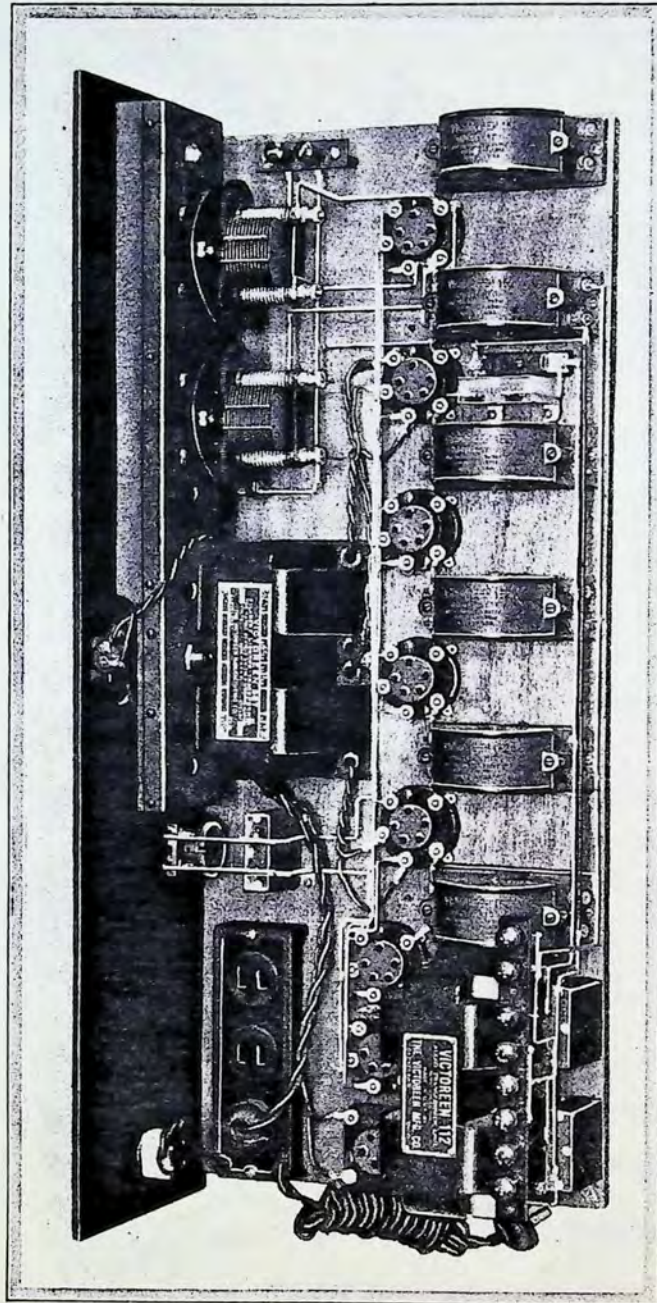
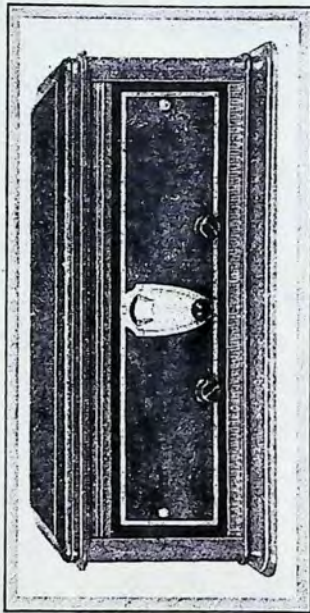
The Victoreen coils used no iron in the core, thereby obtaining a very sharp curve. The air-core was 2" $\varnothing$, permitting a minimum amount of wiring to get the proper inductance. The field was held in close proximity thus making the placement of coils relative to each other less critical than with other types. The SEC was tuned by a midget variable.

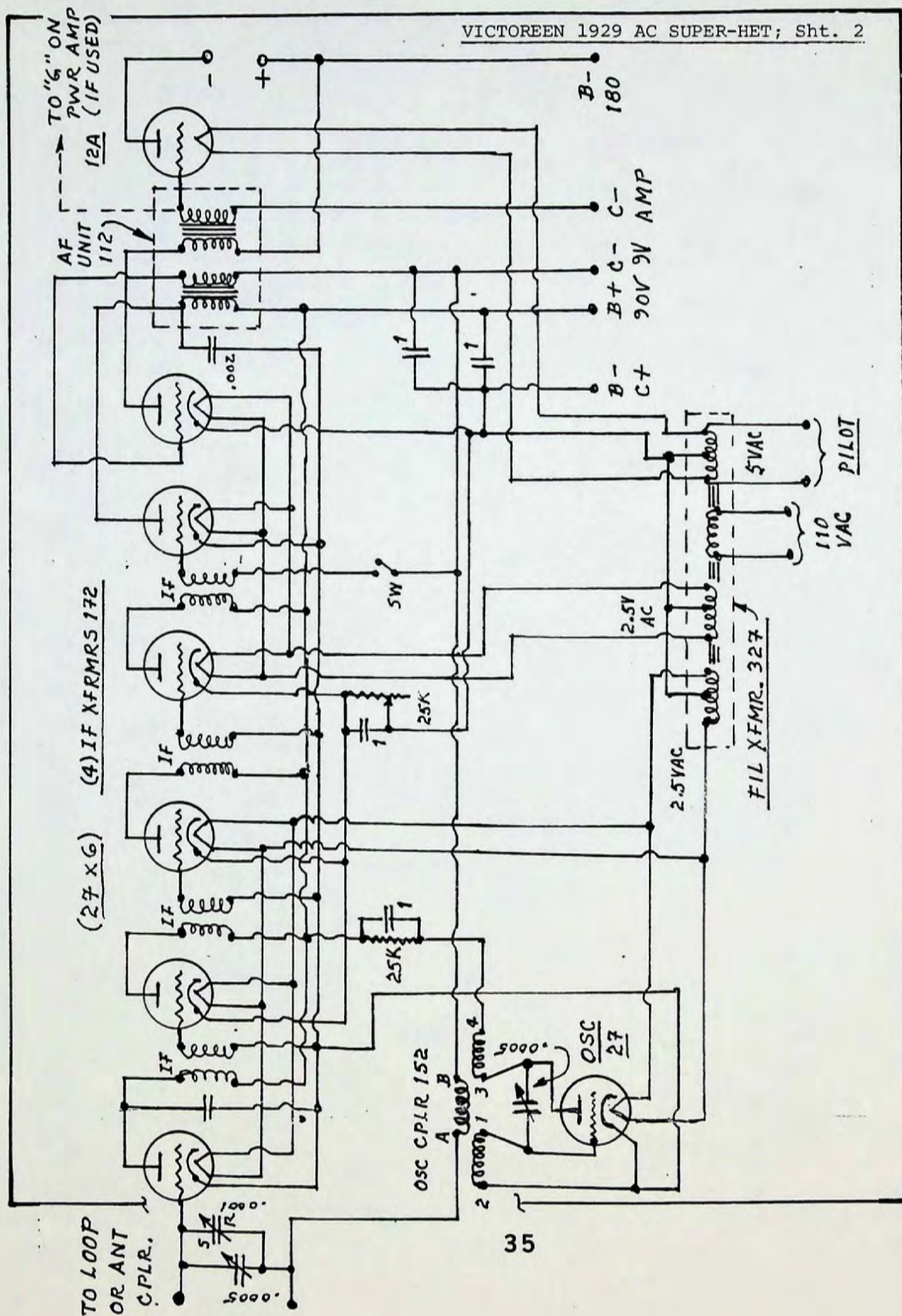
A common problem of early super-hets was the prevention of inter-stage oscillations. In the Victoreen coils, this was accommodated by an adjustment made at the factory. This gave each transformer (coil) exactly the same amplification constant. Also, the VICTOREEN could not be made to oscillate. The matching of tubes was also obviated by the action of the midget variable across the SEC. And because the PRI was aperiodic, the coils could be used with 01A or V99 tubes.

The Victoreen coils were peaked at 3400 meters, equivalent to 88K cycles, thus offering the least trouble from harmonics. Nor was any shielding necessary. The polarity of the "Y"- "Z" terminals on the OSC coil was unimportant, and the grid-condenser could be .00025 or .0005 MFD, with equal results.

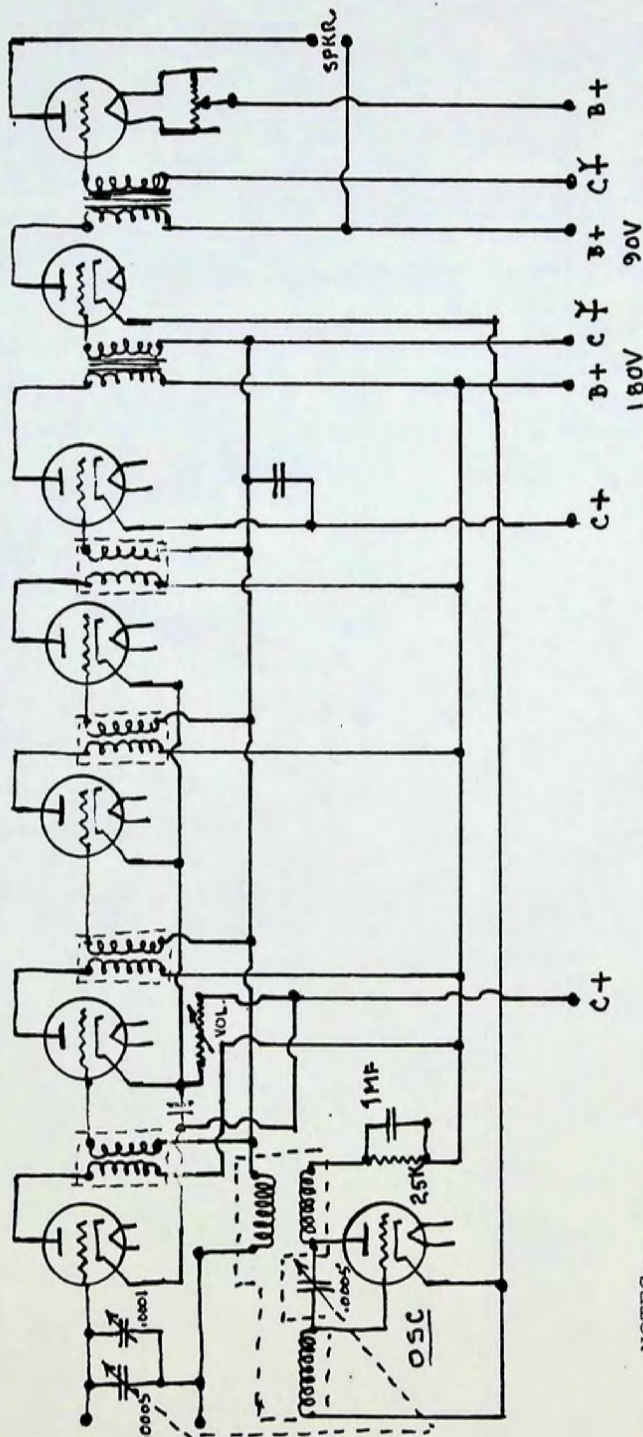
Regeneration, if desired, although little was gained by adding it to the VICTOREEN, using a 3-point loop was done by adding a binding post and a 45 MMF variable to the front panel. See page 42 for details.

VICTOREEN 1929 AC SUPER-HET; Sht. 1



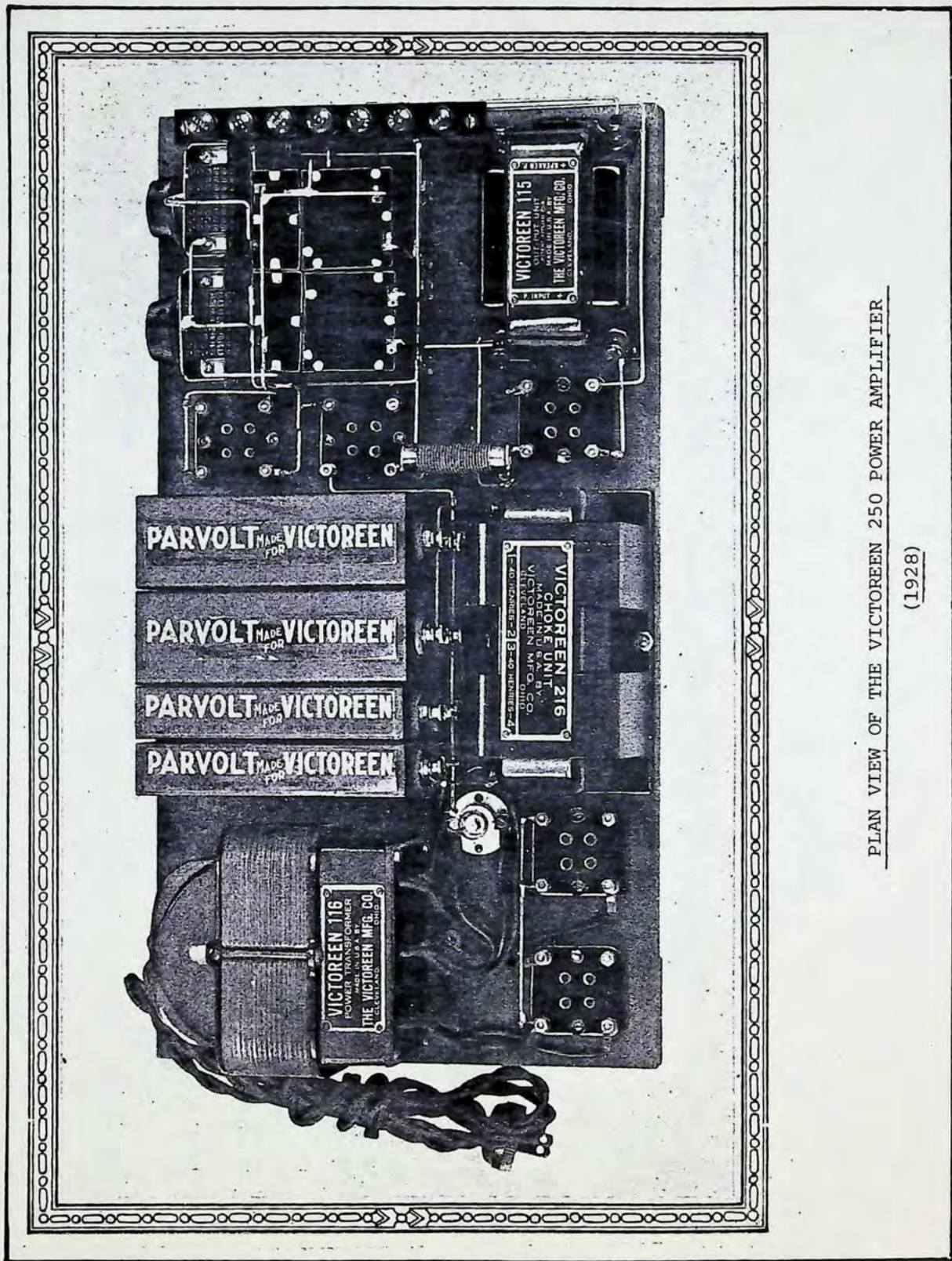


INTERNATIONAL CORRESPONDENCE SCHOOL'S
VERSION OF THE VICTOREEN - 1929

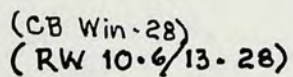


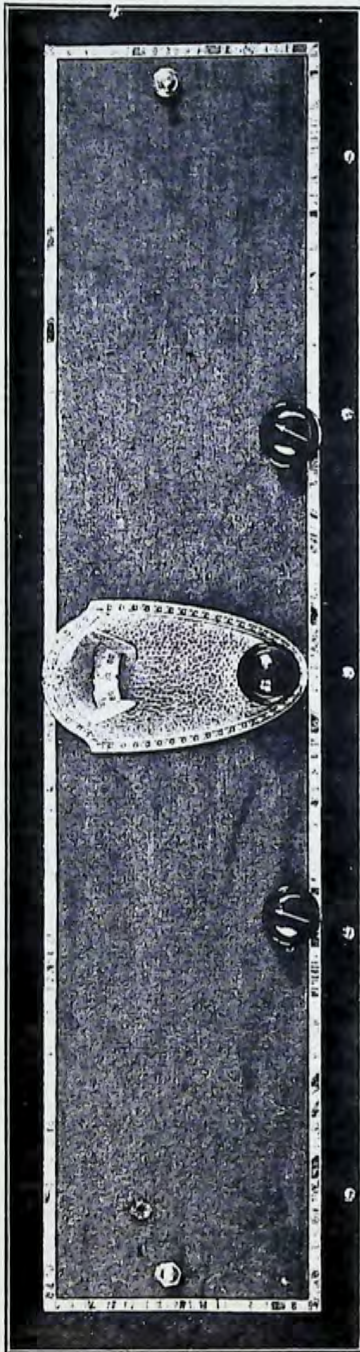
NOTES:

1. C χ = C- (an I.C.S. designation before RME.)
2. For values, see other VICTOREEN schematics.
3. The 25K resistor was an harmonic suppressor.
4. DET system was the plate rectification type.
5. Pilot light not shown.

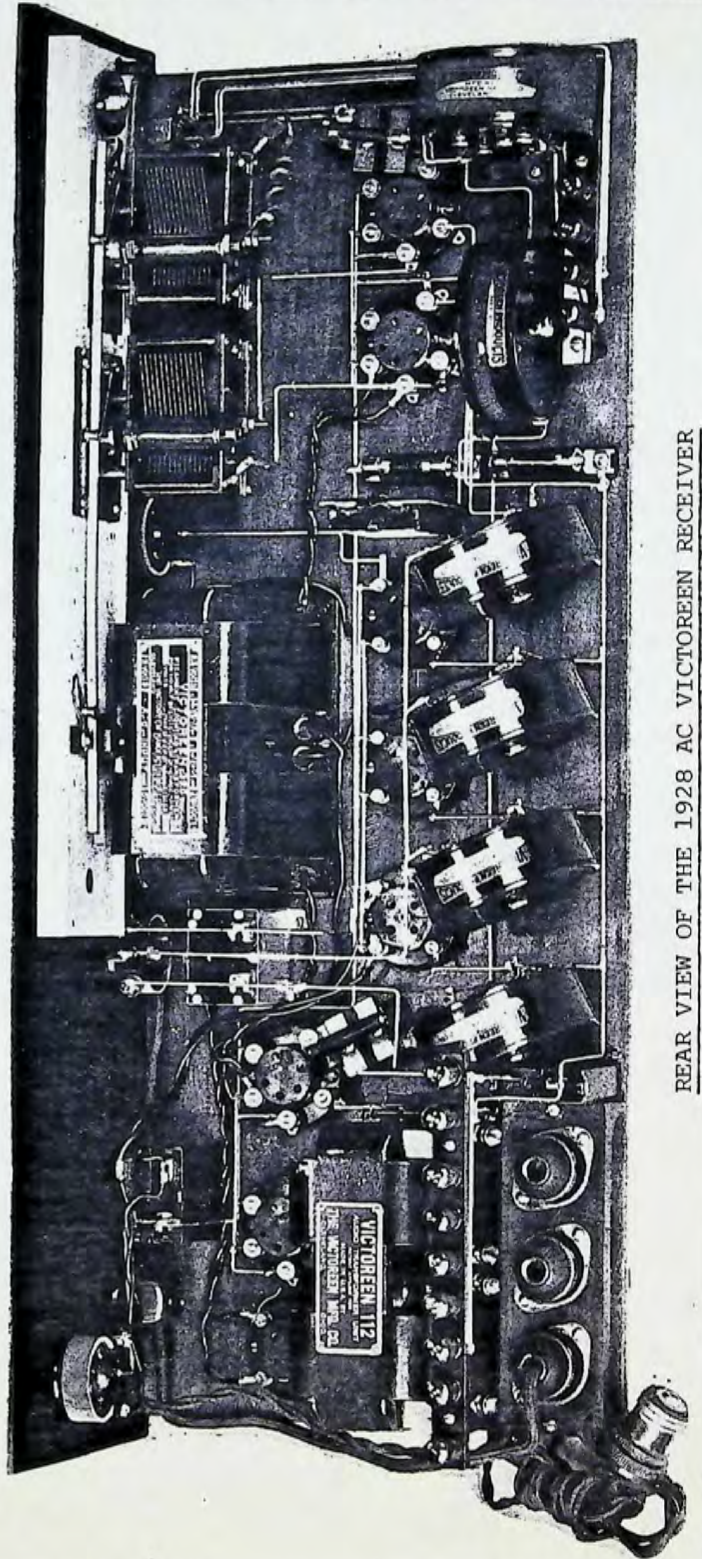


PLAN VIEW OF THE VICTOREEN 250 POWER AMPLIFIER
(1928)

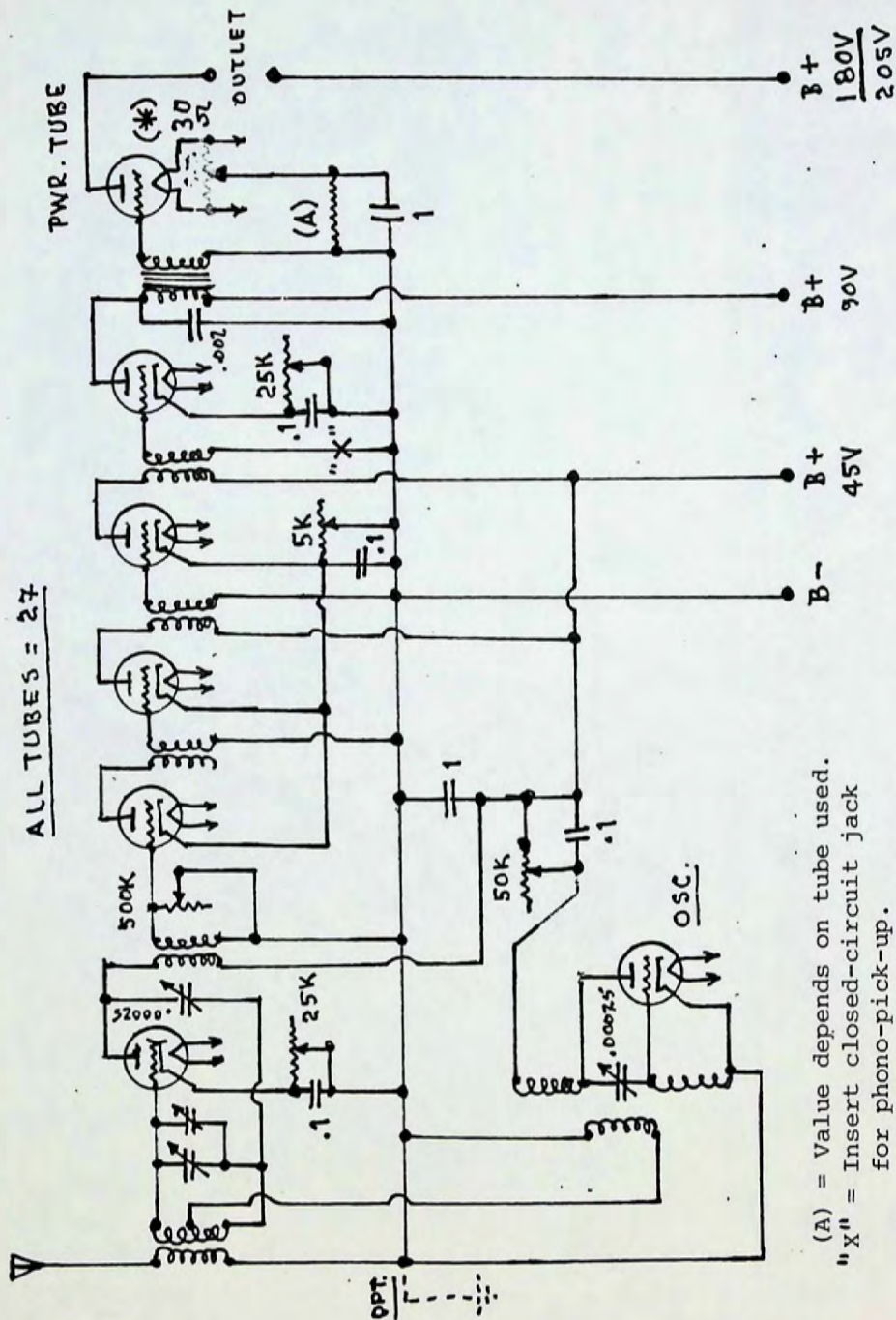




PANEL VARIANT FOR A 1929 AC VICTOREEN



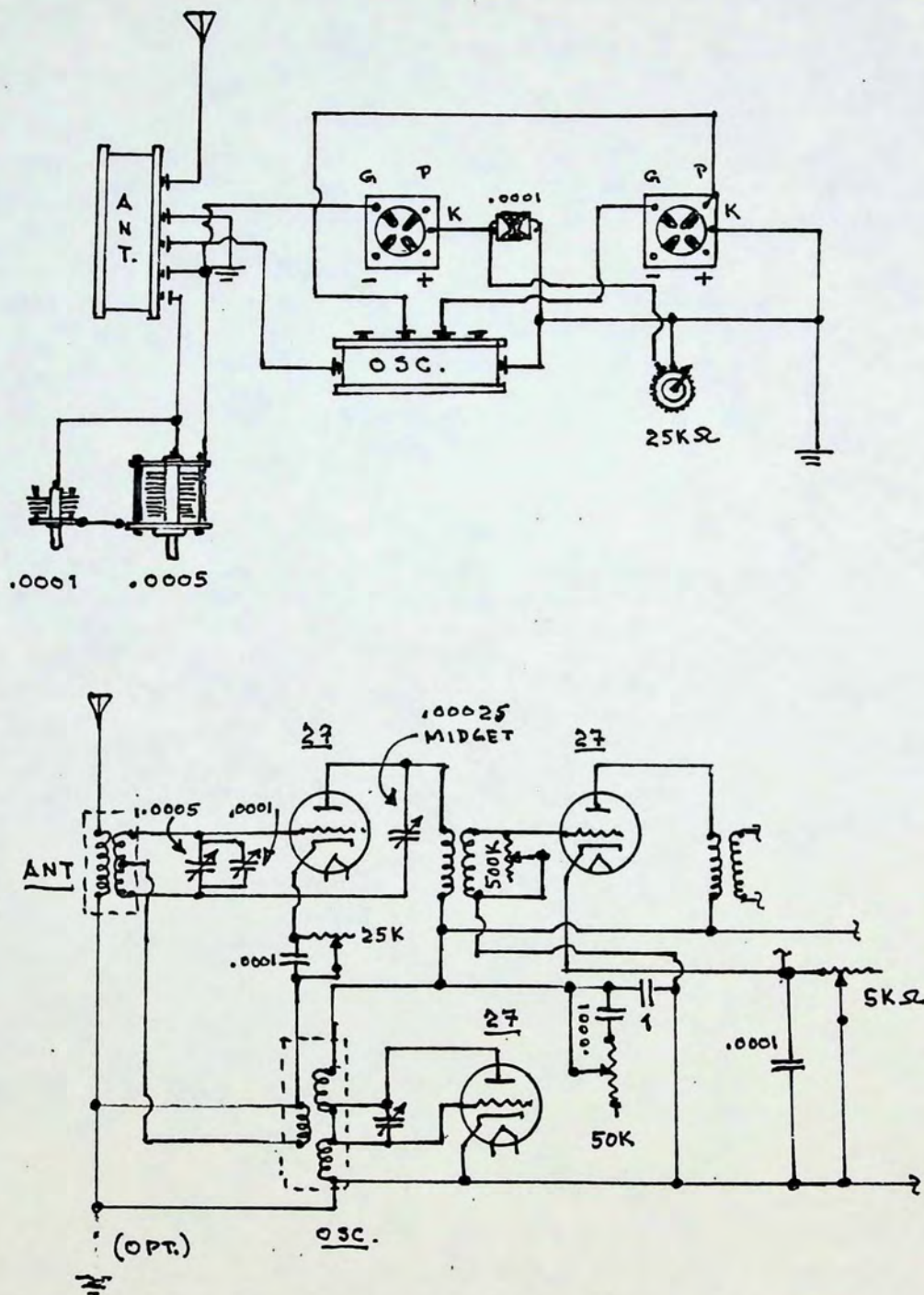
REAR VIEW OF THE 1928 AC VICTOREEN RECEIVER



(PILOT PWR. XFRMR. #407)

(CB 9-30)

VICTOREEN "SUPREME" SUPER-HET, 1930
(Notes on the 1930 Configuration:)



ADDING REGENERATION

Adding regeneration to the VICTOREEN Super-Het is a simple matter, using a 3-point loop. This is done by drilling a hole for a binding post just above the loop jack on the front panel. A larger hole can be drilled just above the new hole to accomodate a 45 MMF midget variable condenser.

The wire connecting the "Y" [REDACTED] terminal on the OSC coil and the Wavelength variable is removed, and replaced with a wire from binding post. The new binding post is for the centre-tap from the loop.

A connexion from the Rotor of the Wavelength variable is then run from the Stator of the 45 MMF midget variable, and from the 45 MMF Rotor to the "P" terminal of the 1st DET tube socket. The #160 coupler which is the ANT coupler, is not required when regeneration is used.

However, little improvement will be noticed with regeneration.

* * *

TUNING ADDENDUM

A good vernier dial is absolutely essential when tuning VICTOREEN Super-Hets, which was also true of all earlier jobbies. Start tuning the OSC variable one degree at a time. For each setting of this dial, a turning of the RH dial should be done, as this controls the ANT, either direction. If no signal is heard, advance the OSC dial and repeat tuning the RH dial - called the Wavelength Dial by Victoreen.

At some point a signal will be heard. The OSC dial should be rotated until the signal is centered. The final adjustment is made with the Wavelength dial.

As some tubes are poor oscillators, it may be necessary to adjust the OSC rheostat to bring in stations on the higher wavelengths. If hissing is heard when turning the OSC rheostat more negative (full on), vary the DET rheostat until hissing disappears.

Local or powerful stations will sometimes be heard at more than a single setting of the dials. This is to be expected, even though harmonic radiation has been minimised in the Victoreen coils. The OSC and RH dial will usually track rather well.

On extreme DX signals, a careful adjustment of the rheostat controlling the Intermediate Amplifiers should be made - about three-quarter of the full-on position. Once adjusted, no further adjustments are made.

* * *

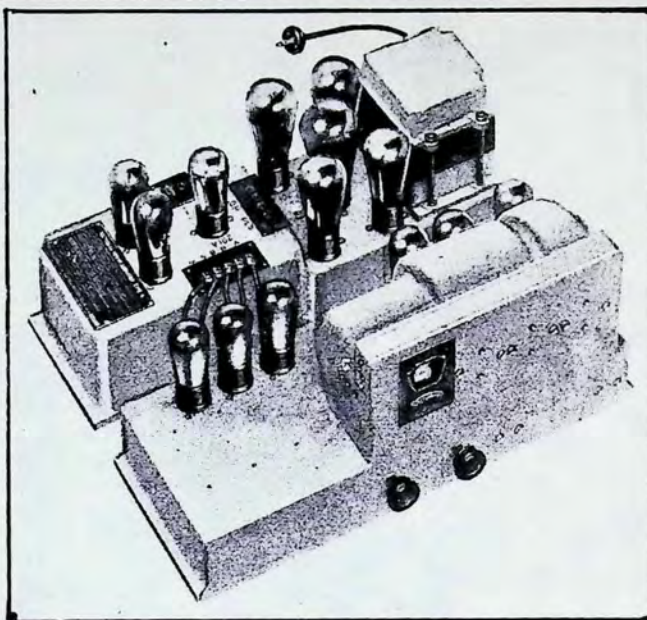


J. A. Victoreen



VICTOREEN 14-TUBE SUPER-HETERODYNE

**Today—the only Radio
that justifies a list price
of \$345⁰⁰**



—and the only chassis
and speaker listed at
\$277⁰⁰

The VICTOREEN radio that no-one seems to know anything about was the last awesome effort to bear the VICTOREEN name, 1930. John Victoreen, himself, had already left the radio arena.

The last VICTOREEN was a 14-tube super-het, offered at the surprising price of \$345 - surprising, in that the Great Wall Street crash was only four months past, and all businessmen were at a loss as to just how to salvage their merchantile empires.

The set was called *Circumnavigator Super*, a name that seemed fitting, in as much as by that time VICTOREEN radios were in 57 countries around the world. The set was in two parts, both units housed on an impressive cast aluminum base-chassis. There were six tubes for the receiver proper - one RF, oscillator, first detector, and three stages of AF. The power-amplifier contained eight valves. The drum-dial was graduated in Kilocycles, for specially designed

variable condensers. The power amplifier consisted of the following:

(2) 81 (2) 874 (VR) 91-A Rectification 50

There were (8) 27 tubes, beside. The 91-A was rectification for "C"; the 874s provided voltage regulation for B+90V and B+180V. The use of a separate tube for "C" rectification was an innovation, and it would appear that that was one idea Scott missed.

The ANT coupler, one RF stage, and the OSC coil were in truth also innovative, in that they were all wound on threaded, rigid lava tubes. In the early Twenties, with all manner of materials being prest into dubious service for all manner of Radio hardware, the use of lava as a body for wire-wound resistors enjoyed a brief popularity until it proved to be economically unsound.

The IF transformers were shielded in copper - also popular as a shielding material until the world-price for copper fell apart - and the IF was accurately set at 157.5 KC. When it was offered to the public and the professional set builder, the "Circumnavigator" was the only production radio that was non-harmonic.

There were only two panel controls, for tuning and volume. With only the GND wire attached, reception was possible from the surrounding area for several hundred miles. However, Victoreen didn't recommend operating the set with only the GND wire, and stated that a 75-ft. single wire antenna, including lead-in, was ideal.

The set in a cabinet was offered with a 6-month guarantee (not a warranty, as is so common today) against defects of materials and workmanship. With its price-tag, the "Circumnavigator" was a direct challenge to Scott's then-emerging "All-Wave" jobbies, both in radio engineering and in cabinetry. The cut on the first page depicts the Louis XVI console. The radio was also offered in true Gothic low-boys, and combination Elizabethan cabinets,

Unhappily, I have never come across the last great Victoreen, nor have I ever met anyone who had. What you have read in the foregoing is the extent of the data I have in my files, but one hopes to come by one someday, or even the schematics. While I've never indulged in the current Scott Mystique, I would still be willing to engage in such esoterica regarding the last great VICTOREEN, with a deference due something truly unique.

* * *
* *
*

The last great VICTOREEN super-hets were offered in three models, ranging from 11, 12, and 14-tube chassis; and ranging in price from \$345 to \$750, the latter price including a cabinet, such as the Queen Anne type shown at right. Needless to say, the cabinets were as elaborate as the chassis.

The 11-tube job was known as the Type A, or Model A, on two cast aluminum chassis, with three stages of IF, a detector, oscillator, a first AF stage and a push-pull second AF stage. As with the top of the line model shown on the preceding pages, the "A" series was of massive construction, heavy, with elaborate machining. The dial was linear, the IF was 175 KC, and the range was 550 KC to 1500 KC, the standard broadcast range of the time.

While the last VICTOREENS were true super-hets, the qualification was never used, as the word was allegedly patented by Westinghouse. There was, of course, the inevitable legal altercations as soon as the VICTOREEN super-hets came out, with Westinghouse suing Victoreen under the aegis of RCA. Actually, according to subsequent editorial copy in the trade-medium "Radio Retailer", this was the last futile attempt by The Octopus to exert a monopoly on the Radio industry.

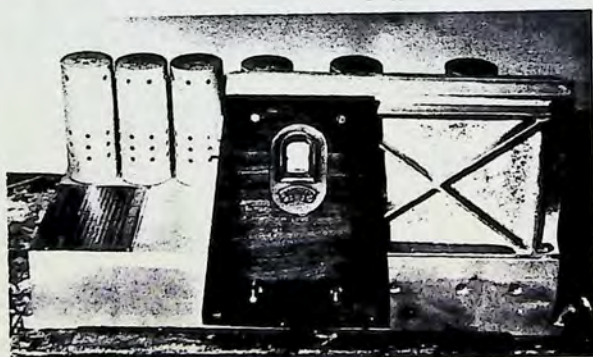
The suit dragged on, was never resolved, and died aborning. In the meanwhile, however, Victoreen had divested himself of all interests in the Victoreen Radio Company and George Walker, the manufacturing end of the company, both in Cleveland. Victoreen went on to investigate x-rays, hearing aids, decoders, scramblers, and such, mainly through contracts with the D.O.D. After Hitler's War, he retired to Florida,

and went into the business of designing, manufacturing, and distributing sophisticated hearing aids. His own affliction undoubtedly had something to do with his interest in impaired hearing.

All of the last great VICTOREEN super-hets are rare.



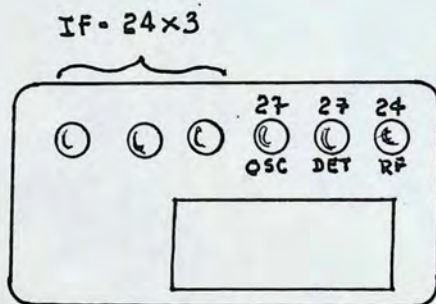
Victoreen Model 345 low-boy.



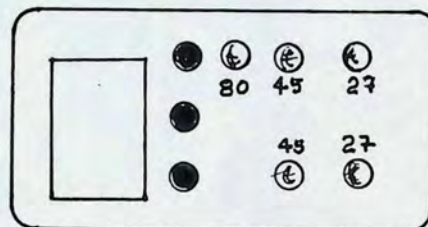
Victoreen Type A chassis

VINTAGE RADIO IDENTIFICATION SKETCH-BOOKS

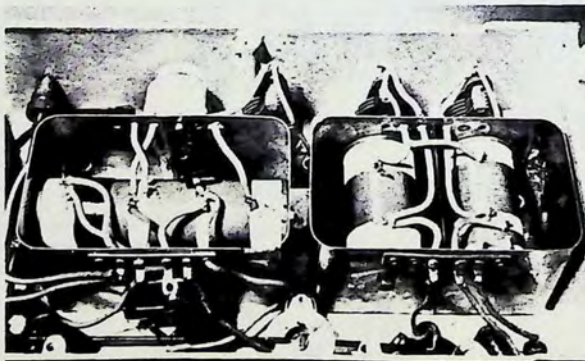
The illustrations below show the tube layout for the Model A, along with the RF and IF coil compartments, with the heavy gauge shields removed. The power amplifier was a separate unit, and its construction may have been influenced by Scott's 12 and 15-tube chrome-plated jobs. I know of only one Model A VICTOREEN super-het in the country, and I know of no-one who has even seen the 14-tube chassis. If you do, I would very much like to hear from you, or The Vintage Radio Foundation.



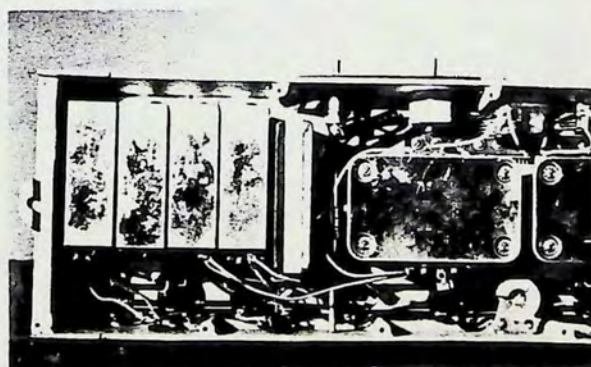
Tube Layout



Power Amplifier



RF coils



IF coil boxes



The Chassis

itself, is a distinct departure from accepted construction practice, designed by J. A. Victoreen—pioneer radio engineer. Built in two parts—receiver and amplifier—each encased in cast aluminum.

The circuit provides for 6 tubes in the tuner, consisting of a stage of r.f., oscillator, first detector and three stages of intermediate frequency. The amplifier contains the second detector as well as the first and second audio stages.

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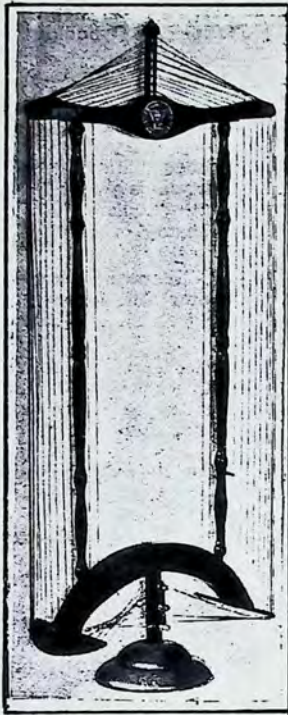
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The cut at left depicts the VEE loop antenna. It was manufactured in Cleveland by Chas. J. Victoreen, a brother of John. The VEE company only endured for a couple of years, and the loop shown was probably their best product.

Unfortunately, they were in competition with FIAT and BODINE, both of whom were producing similar and more elaborate loops of the same configuration. In terms of performance, there was no difference between any of them, as determined by my own experience.

* * *

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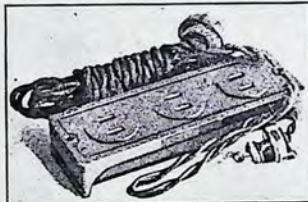
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 FOR 110 VOLTS 60 CYCLES -

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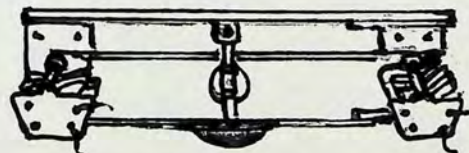
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MASTER CONTROL UNIT (\$19.50)
 (2) .0005 MFD Variables.

Dr. Victoreen Dies May 5



On May 5, 1986 John Austin Victoreen, otherwise known as "Dr. John", passed away as a result of cardiac arrest at Maitland, Florida. Dr. Victoreen was well known for his Victoreen superheterodyne kits in the 1920's and, later, for his radiation monitoring equipment. In recent years he made more than 25,000 hearing measurement obser-

vations from which he developed empirical mathematics related to loudness sensation by frequency and sound pressure for the non-deficient ear. See related story published in "Radio Age" April 1986.

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